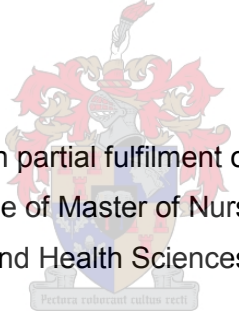
THE DEVELOPMENT OF A CLINICAL PRACTICE ASSESSMENT PORTFOLIO FOR THE CLINICAL NURSING SCIENCE, HEALTH ASSESSMENT, TREATMENT AND CARE PROGRAMME

MARIAM ROSENBERG



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DECLARATION

By submitting this thesis electronically, I declare that the entirety of the work contained therein is my own, original work, that I am the sole author thereof (save to the extent explicitly otherwise stated), that reproduction and publication thereof by Stellenbosch University will not infringe any third party rights and that I have not previously in its entirety or in part submitted it for obtaining any qualification.

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ABSTRACT

The support for portfolio-based learning as an authentic assessment method is increasing globally. However, there are no guidelines in South Africa for a clinical practice assessment portfolio (CPAP) for primary clinical practitioner training. The study set out to develop a CPAP for the Clinical Nursing Science, Health Assessment Treatment and Care programme.

An exploratory, descriptive design was used that developed over three phases. In phase one, a CPAP was developed based on an extensive review of the literature. The CPAP was validated in phase two by experts and finally, student primary clinical practitioners assessed the possible contribution of the developed CPAP to their learning in phase three.

The study sample for the three phases comprised of selected relevant studies published on portfolio development (n=15); experts in the field of primary health care and education in the Cape Metropole (n=11); and student primary clinical practitioners of one higher education institution in the Cape Metropole (n=45). Structured questionnaires were used for data collection from expert and student participants after they reviewed the CPAP.

Ethical approval was obtained from the Health Research Ethics Committee of the Faculty of Health Sciences (N09/09/233), Stellenbosch University. Permission to conduct the research was obtained from the higher education institution.

The content validity index for items (I-CVI) was used to determine the degree to which expert participants agreed with the content of the CPAP. Results identified an I-CVI of between 0.91 and 1.00, indicating that the contents and technical format of the CPAP constitute a suitable learning tool for student practitioners. Experts suggested minor revisions regarding the clarity of items, and those were included in the final CPAP.

The data analysis of the student's responses showed that adequate guidance was provided to complete the activities in the CPAP and that the CPAP would have a positive contribution to learning.

Portfolio-based learning is an important teaching and learning strategy in the Clinical Nursing Science, Health Assessment Treatment and Care programme, whereby students can demonstrate their acquired clinical competencies. Recommendations include the use of a competency framework and consensus amongst stakeholders when developing the contents of a portfolio.

OPSOMMING

Die ondersteuning vir portefeulje-gebaseerde leer as ’n outentieke assesseringsmetode is besig om globaal te verhoog. In Suid-Afrika is daar egter nie riglyne vir ’n kliniese praktyk-assesseringsportefeulje (KPAP) vir primêre kliniese praktisynsopleiding nie. Hierdie studie het ten doel om ’n kliniese praktyk-assesseringsportefeulje vir die Kliniese Verpleegkunde-, Gesondheidsassesseringbehandeling- en Sorgprogram te ontwikkel.

’n Verkennende, beskrywende ontwerp wat oor drie fases ontwikkel het, is gebruik. In fase een is ’n KPAP ontwikkel gebaseer op ’n ekstensiewe literatuurstudie. Die geldigheid van die KPAP is in fase twee deur kundiges verklaar en in fase drie is die moontlike bydrae van die KPAP tot die leerproses deur primêre kliniese praktisynstudente geassesseer.

Die studiegroep vir die drie fases het bestaan uit geselekteerde relevante studies wat handel oor portefeulje ontwikkeling (n=15), kenners op die gebied van primêre gesondheidsorg en opvoeding in die Kaapse Metropool (n=11); en primêre gesondheidsorg studentpraktisyns van een van die tersiêre instansies in die Kaapse Metropool (n=45). Gestruktureerde vraelyste is gebruik vir data-insameling van kenners en studentedeelnemers nadat hulle die KPAP ondersoek het.

Etiese toestemming is verkry van die Gesondheidsnavorsingsetiekkomitee van die Fakulteit Gesondheidswetenskappe (N09/09/233), Stellenbosch Universiteit. Toestemming om die navorsing uit te voer, is van die tersiêre instansie verkry.

Die inhoud van die item-geldigheidsindeks is gebruik om die mate waarmee kenner-deelnemers met die inhoud van die KPAP saamstem, te bepaal. Resultate van die inhoud van die item-geldigheidsindeks van tussen 0.91 en 1.00 is geïdentifiseer, wat ’n aanduiding is dat die inhoud en tegniese formaat van die KPAP ’n toepaslike leerinstrument vir studentpraktisyns is. Kenners het klein veranderings vir die duidelikheid van items voorgestel en dit is ingesluit in die finale KPAP.

Die data-analise van die studente se antwoorde het aangedui dat genoegsame leiding voorsien was om die aktiwiteite in die KPAP te voltooi en dat die bydrae van die KPAP positief is tot die bevordering van die leerproses.

Portefeulje-gebaseerde leer is ’n belangrike onderrig- en leerinstrument vir die Kliniese Verpleegkunde-, Gesondheidsassesseringbehandeling- en Sorgprogram, waardeur studente kan demonstreer dat hulle die kliniese bevoegdhede bekom het. Aanbevelings sluit in die gebruik van ’n bevoegdheidsraamwerk en konsensus onder belanghebbendes wanneer die inhoud van ’n portefeulje ontwikkel word.

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ABBREVIATIONS

CPAP	Clinical practice assessment portfolio
I-CVI	Content Validity Index for Items
HEI's	Higher Education Institutions
ICN	International Council of Nurses
PHC	Primary Health Care
NQF	National Qualification Framework
SAQA	South African Qualifications Framework
SANC	South African Nursing Council
PGWC	Provincial Government of the Western Cape
WCDoH	Western Cape Department of Health
WHO	World Health Organisation

CHAPTER 1: FOUNDATION OF THE STUDY

1.1 INTRODUCTION

This study focused on the development, validation and assessment of a clinical practice assessment portfolio (CPAP) for the training of primary clinical practitioners. The literature on nurse education indicates increasing support for portfolio-based learning as an authentic assessment method (Coffey, 2005: 75-77). Researchers such as McMullan (2006:333-334), Mc Cready (2007:143) Sowter, Cortis and Clarke (2011:872) are of the view that portfolio- based learning facilitates the development of the individual student, both professionally and personally, through the critical reflective practice process. In the context of the literature and the current study a portfolio is defined as a collection of information that demonstrates evidence of the individual's learning process and levels of competence (Miller & Tuekam, 2009:79).

This chapter orientates the reader to the study by providing an introduction to the research topic, an overview of the significance of the problem, the rationale, the problem statement and the research aim and objectives. In addition, the conceptual framework, research methodology and the ethical considerations are described and discussed. This is followed by the definitions of terms, the duration of the study, a chapter outline, and the significance of the study, a summary and the conclusion.

1.2 SIGNIFICANCE OF THE PROBLEM

1.2.1 Portfolio-based learning and assessment

Globally and locally the appropriate, valid and reliable assessment of clinical learning in post basic nursing education remains a challenge**.** Clinical assessment is challenged by issues of inconsistency, subjectivity and clinical environments that are becoming increasingly complex. A key challenge is the development and use of valid and reliable clinical assessment tools (Oermann, Yarbrough, Saewert, Ard & Charasika, and 2009:352). The authors suggest that a combination of assessment strategies to both identify and validate nursing competence in a primary clinical context is required to ensure safe and competent nurse practitioners in this area.

A South African study by Strasser, London and Kortenbout (2005:134) on nursing education confirmed the above challenges. Chabeli (2002:80) argues that "the quality of nursing education is debatable, especially with regard to the assessment and evaluation of clinical nursing education, which is complex and renders the validity and reliability of the methods used

questionable". Chabeli (2002:80) suggests that the traditional methods of assessment and evaluation need to be revisited and supplemented with researched-based evidence of alternative methods of assessment, such as portfolio learning and assessment.

Mc Cready (2007:143-144) found that the use of a portfolio has been endorsed as a valuable educational tool and a useful product for nurse educators in the assessment of programme goals. Paper- and pencil tests as the primary means for evaluating theoretical learning neglect the contributions made by rich experiential learning and fall short of assessing the distinctive, caring basis of the practice of nursing. Portfolio-based learning and assessments are authentic and reliable assessment methods with evidence from multiple sources that verify and validate student centred learning, and supports student ownership of learning. Portfolios can be used as a means of convincing students to reflect on their competencies and to view their education and role in society by using a holistic approach to ensure continuous quality improvement and life-long learning (Mc Cready (2007:143-144).

The above stated outcomes of portfolio learning and assessment as found in the literature, articulate well with the competencies required by the South African Nursing Council (SANC) of primary clinical practitioners in South Africa (SANC, 1993a).

1.2.2 The competence and leadership role of primary clinical practitioners in South Africa

After the implementation of the nurse-driven primary health care (PHC) system, a qualitative study of this PHC system by Gwele and Strasser (1998:83) found that "nurses bear the brunt of the responsibilities of a health system functioning without an adequate complement of human resources". Ijumbaa (2002:181) cites inadequate and inappropriate training of PHC nurses as challenges to the success of the system. Geyer, Naude and Sithole (2002:11) share this concern in stating that nurses are deployed in these PHC services without "specialist training" and therefore argue that the primary clinical practitioner in the South African context requires post basic preparation to ensure the delivery of quality primary care services to the South African population. This is of particular importance since the expectations of patients in the public health system in South Africa have risen which demand a higher level of professionalism and accountability from all nurse practitioners (Stellenberg & Bruce, 2007:2).

A more recent study by Strasser, London and Kortenbout (2005:134) confirms the need for high quality clinical care and for the provision of more adequately skilled nurses for the PHC services

in South Africa. This is a concern since nurses undertaking the SANC post basic training in Clinical Nursing Science, Health Assessment Treatment and Care, commonly referred to as the Primary Clinical Practitioner training, is mentored by these nurse practitioners in the PHC facilities in the course of acquiring experiential learning and competency.

The above mentioned postgraduate diploma, although not sufficient to meet this challenge, is seen as the 'gold standard' of competence in primary care (Strasser, London & Kortenbout, 2005:135). Health care in South Africa is evolving therefore through "task-shifting", the role of the primary clinical practitioner is expanding which includes the management of HIV/AIDS programmes and the prescribing of medication (Dohrn, Nzam & Murman, 2009:55; Willard & Glaser, 2009:1-4). Evans and Tippins (2007:15) found that the construction of a portfolio demonstrating an individual's professional knowledge and competence to cope with expanding roles and responsibilities is an essential part of professional development.

1.3 RATIONALE

Geyer, Naude and Sithole (2002:11) advocated that the nursing education and training programmes of primary clinical practitioners be adapted in line with their roles as specialists. These researchers and others before them argued that by implementing portfolio-based learning in the training of the primary clinical practitioner the educational balance would shift from a teacher/mentor-centred one to a more student-centred learning experience (Elango, Jutti & Lee, 2005:511-512).

According to this model portfolio development gives students the opportunity to value their own lifelong learning and to develop self-reflection, besides improving collaboration between academic staff and students (Tracy et al., 2000 241). However, since no clear guidelines for a CPAP for a primary clinical practitioner's training could be located for the purposes of this study, this study set out to develop the contents of a CPAP to ensure that student primary clinical practitioners who are placed in PHC settings meet SANC's clinical learning outcomes as outlined in the Regulations for the Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care.

1.4 PROBLEM STATEMENT

The emphasis of the postgraduate Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care is on the development of the clinical competencies of the primary clinical practitioner to deliver a comprehensive service (SANC, 1993a). The focus of the curriculum is

on skills development and expert knowledge in the area of comprehensive primary care. In addition to this, the practitioners undertaking the Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care in accordance with Section 57 of the Nursing Act 33 of 2005 are authorised by the Director General to fulfil an extended function in the public sector (Geyer, Naude & Sithole (2002:11). The clinical component of this course consists of 960 hours of clinical learning that the student has to complete in order to obtain registration of the additional qualification as a primary clinical practitioner with the South African Nursing Council (SANC, Regulation 48:1993b).

According to this model student primary clinical practitioners completing the programme are supervised by tutors and guided by primary clinical practitioners (Geyer, Naude & Sithole 2002:11).The 960 hours are, for the most part, independent learning time spent in contact with clients, these authors cite the limited number of trained personnel as a challenge to ensure optimal guidance and leadership for students. This concern is shared by Day, Barron, Monticello and Sello (2009:29) who report on the high professional nurse to patient ratio in South Africa, being up to forty patients per professional nurse per day.

Currently, no guidelines that specify the content for a CPAP for primary clinical practitioner's training could be located. This study therefore set out to develop a CPAP to guide independent learning in clinical facilities to ensure that student primary clinical practitioners develop their clinical competencies to deliver a comprehensive service to the South African population.

1.5 RESEARCH QUESTIONS

What content should be included in a CPAP for student primary clinical practitioners based on the literature and expert opinion?

How do student primary clinical practitioners assess the possible contribution of the developed CPAP to their learning?

1.6 RESEARCH AIM

The aim of this study was to develop a CPAP for the Clinical Nursing Science, Health Assessment Treatment and Care programme.

1.7 RESEARCH OBJECTIVES

The aim of this study was achieved through the following objectives:

Phase 1: To develop a CPAP for student primary clinical practitioners from a review of the literature.

Phase 2: To validate the CPAP based on the opinions of expert participants in the field of primary health care and education.

Phase 3: To describe student primary clinical practitioners' assessment of the developed CPAP's possible contribution to their learning.

1.8 PORTFOLIO DEVELOPMENT FRAMEWORK

The International Council of Nurses (ICN) framework of competencies for the Nurse Specialist was used because it identifies competencies that are required for nurses to perform safely within the scope of a specialist nurse's practice. The framework has been applied internationally by the regulatory bodies of countries in various ways, for example the specialty of the family nurse (ICN, 2009:5-8). Within the framework domains and core competencies are described that could direct the development of specialist primary clinical practitioners (ICN, 2009:5-8). The framework is suitable to guide the development of specialty nursing as indicated by the objectives of the study. Competencies described within the framework are under the following three domains: professional, ethical and legal practice; care provision and management; and professional, personal and quality development [Figure 1.1]. These three domains are categorised into specific competencies that are regarded as the foundation for specialist practice. See table 2.2 in chapter two for further details.

Figure 1.1: Framework of Competencies for the Primary clinical nurse specialist (adapted from the ICN Framework of competencies for the Nurse Specialist)

1.9 RESEARCH METHODOLOGY

A brief overview of the research methodology applied in this study is provided in this chapter while a detailed description and report follows in chapter three.

1.9.1 Research design

The researcher adopted a quantitative research approach for this study. A descriptive, exploratory design was used to develop a CPAP for student primary clinical practitioners. The approach was considered appropriate for this study since the researcher wanted to validate the developed CPAP through consultation with experts and describe how student primary clinical practitioners assessed the possible contribution of the CPAP to their learning. The research process of the study is discussed in three phases. Phase one describes the development of a CPAP based on a review of the available literature pertaining to portfolios and primary clinical education. In phase two the CPAP was validated through describing how a panel of experts in the field of primary health care nursing education assessed the CPAP. Phase three describes how student primary clinical practitioners assessed the possible contribution of the CPAP to their learning.

1.9.2 Study setting

The study was conducted in PHC facilities and higher education institutions (HEIs) in the Cape Metropole area of the Western Cape. These institutions were accessible to the researcher. In the Cape Metropole area, there are four HEIs. The district health services are divided into eight

sub districts which included forty three PHC facilities.The education expert participants who agreed to participate in phase two of the study were selected from three of these HEIs that provided the qualification in Clinical Nursing Science, Health Assessment, Treatment and Care. The primary clinical care practitioners who agreed to participate in phase two of the study where selected from four PHC facilities in three of the sub districts of the District Health Services. The four PHC facilities were selected conveniently since they were in close proximity to the four different sub districts. These are the workplaces of these participants and thus represented familiar and 'natural' settings in terms of the teaching these participants do.

Burns and Grove (2011:40) advocate that descriptive studies should as far as possible be conducted in natural settings, with no change of the environment for the study. A primary health care facility is a familiar and 'natural' setting for both the student and the primary clinical practitioners mentoring them. The setting for phase three of the study was conducted in PHC facilities where student primary clinical practitioners had been placed for their experiential learning. The reason for choosing this setting is that clinical facilities are a rich resource for developing both knowledge and experiential clinical learning. In addition, the PHC environment offers students the opportunity to work within a multidisciplinary team, as well as with clients who present in this setting with a wide range of diseases, including chronic diseases of lifestyle.

1.9.3 Population and sampling

Polit et al. (2001:467) define a study population as the entire set of individuals or objects demonstrating common characteristics. The population for phase one consisted of all relevant studies on portfolio development and learning. The search strategy involved the use of databases including EBSCOHost, Science Direct and Pubmed. Search terms used included: clinical competence, competencies, portfolio development, primary clinical care and content validity. The review retrieved a total of 55 relevant studies in the database between 2003 and 2013 on the subject. The studies were assessed for relevance to the topic based on the information from the abstract (McCready, 2007:144). Fifteen studies were finally chosen that represented specific indicators of portfolio-based learning in primary clinical care and the content for the relevant competencies. The review also included grey material such as policy documents and 13 curriculum documents from university websites and chapters from books relating to the topic.

The objective of phase two was to validate the CPAP through consulting the opinions of experts. The target population consisted of experts in the fields of primary health care and higher

education in the Cape Metropole area. Inclusion criteria for the primary clinical expert participants included a minimum of four years of experience in Clinical Nursing Science, Health Assessment, Treatment and Care, registration with the SANC, experience in facilitating PHC students and currently practising in clinical facilities. The education experts were in possession of a qualification in Nursing Education, were registered with the SANC and had a minimum of four years of teaching experience in primary health care. A purposive sampling technique was used for the recruitment of the expert participants once ethical approval had been obtained. After an information session was held (n=6) primary clinical practitioners and (n=6) nursing education experts who met the inclusion criteria volunteered to be part of the study.

The population for phase three included student primary clinical practitioners completing the postgraduate diploma course in Clinical Nursing Science, Health Assessment, Treatment and Care at the HEI that delivered the course on NQF level 8. Purposive sampling was used, as it involves the conscious selection of certain subjects for inclusion in a study (Burns & Grove, 2005:352). The inclusion criterion applied for the population was all the students undertaking the postgraduate diploma course, (N=105) students at the University under study. A total of 105 students were on the programme and (n=60) voluntary participants were recruited to evaluate the CPAP. During the three months that the students were involved in the study, n=45 (75%) students assessed the CPAP's possible contribution to learning and completed the questionnaire. The students were purposively selected for their clinical nursing knowledge and their exposure to primary clinical care. De Vos et al. (2005:196) suggest that, from a population of 100, the number of respondents for the sample should be (n=45) participants. The criteria for selecting the participants were discussed and confirmed with the statistician. After a period of three months 45 participants completed the questionnaire and consent forms.

1.9.4 Data collection tool

In phase one data was collected from a literature review between the years 2003 and 2013 without the use of a specific instrument.

Data collection in phase two from the expert participants was done by means of a questionnaire (Appendix F). The questionnaire comprised of a four-point Likert scale, ranging from strongly disagree (1) to strongly agree (4). The questionnaire was subdivided into four sections and consisted of 33 structured closed-questions and one open-ended question. The sections included a) biographical data of the participants, b) questions related to the content of the CPAP, c) the technical format of the CPAP and d) the open-ended question which allowed

participants the opportunity to remove or reword items in the CPAP and to make additional comments.

In phase three the data collection of the students' assessment of the CPAP's possible contribution to learning was also done by means of a questionnaire (Appendix G). A self-completion questionnaire for data collection was used. The questionnaire consisted of seventeen structured closed-questions sub-divided into two sections. The sections included a) biographical data of the participants and b) questions related to learning using the CPAP.The questionnaire comprised of a four-point Likert scale, ranging from strongly disagree (1) to strongly agree (4).The Likert scale was useful in describing student primary clinical practitioners' assessment of the developed CPAP's possible contribution to their learning.

1.9.5 Pretesting of the instruments

The questionnaires used in phase two and three of the study was pretested to determine their validity and reliability. Burns and Grove (2011: 49) suggest that pretesting of instruments to be conducted as it is useful to determine if the correct data collection procedures are followed and if any errors occurred in the instrument. The researcher selected three expert participants who were not participating in the main study, from the same population to validate the questionnaire used in phase two. The participants were contacted independently to review the questionnaire that was given to the experts (Appendix F). As a result of the pretesting procedure, a minor adjustment was made to the questionnaire regarding the years of experience of the experts. The adjustment was clarified with the statistician who confirmed the suggestion.

In phase three, the same procedures were followed with the pretesting of the questionnaire that was given to the students (Appendix G). Three student primary clinical practitioners were contacted independently to review the questionnaire. They responded well to the questionnaire, making adjustments unnecessary.

1.9.6 Reliability and validity

Burns and Grove (2005:732) describe how evidence for content related validity can be gathered from experts in the content related to the study, literature and individuals who are representative of the relevant populations. The following methods were applied to determine the validity and reliability of the questionnaires (Appendix F and Appendix G) and the CPAP (Appendix H) in the study:

1.9.6.1 Content validity of the CPAP

The researcher completed an in-depth literature review on portfolio-based learning. Inclusion criteria were used to select the relevant literature.

A framework for the contents of the CPAP was developed from the literature, as well as from the guidance and advice of the supervisor of the study.

This process was followed by an assessment of the CPAP in phase two of the study by a panel of eleven independent reviewers. They indicated whether they considered the items in the CPAP as being representative of all the elements of portfolio-based learning by completing a structured questionnaire with a four-point Likert scale. An open-ended question gave the reviewers the opportunity to provide their own comments.

1.9.6.2 Validity of the questionnaires

The questionnaires were based on the contents of the CPAP and the objectives of the study.

The questionnaires were adapted from an instrument for measurement in similar studies.

Consultations were done with experts in the field, such as the study supervisor and three independent reviewers.

The questionnaire was reviewed by a statistician to ensure the suitability of the questionnaire for data analysis.

A pretest was performed as indicated in 1.9.5 above.

1.9.6.3 Reliability

Reliability was ensured through the following:

- The questionnaire did not lend itself to doing a Cronbach's alpha test, since there was no need to measure the extent to which the questions in each sub-category measured the same construct. The consistency of participants' responses was calculated separately for each question and is reported on in chapter four.
- Reliability was improved on by pilot testing the instruments, by ensuring that the participants understand the questionnaire and making the researcher's contact details available should they have had any questions.

1.9.7 Data collection

The data collection for phase one identified all relevant studies on portfolio-based learning. The search strategy involved the use of databases including EBSCOHost, Science Direct, Pubmed, as well as accessing relevant journals through online library services at the University of the Western Cape. Search terms used included: clinical competence, competencies, portfolio development, primary clinical care and content validity. Criteria identified for evaluating the relevance and usefulness of the research studies were: the year of publication, names of authors, study type, population, common indicators, and interventions to identify and institute portfolio learning. The criteria also included the outcomes of the studies, the methods of validation, and comments by researchers, as well as recommendations for future use (Evans, 2008:9-31).

In phase two data was gathered from the expert participants over a period of two months after ethical clearance was obtained for the research. This included the presentation of a questionnaire to experts in the fields of primary health care and education to seek their opinion on the content and technical format of the CPAP. After the researcher had explained the nature and purpose of the research to the experts, they were provided with a hard copy of the CPAP, a questionnaire and the participant consent form. Following several consultations, 11 of the 12 participants completed the questionnaires.

In phase three, the data collection process with student primary clinical practitioners was completed over a period of three months. The process commenced after ethical clearance had been obtained for participation by the student participants. After the researcher had explained the nature and purpose of the research the students were provided with a hard copy of the CPAP, a questionnaire and the participant consent form. They completed a structured closed-question questionnaire on their opinions of the CPAP as a learning tool.

1.9.8 Data analysis

Data analysis in phase one involved the process of involved reading of the relevant literature. The data on portfolio learning in primary clinical care were identified for the most important points and the information was written down. Subsequently, these key points were organized and compared to get a general idea of the data.

In phase two, data was obtained from the expert participants via a questionnaire (Appendix D) and were captured independently by the researcher on an Excel spreadsheet. The data was

then rechecked by a nursing lecturer. The data analysis was done by a statistician using the STATISTICA version 11 computerized programs. Descriptive statistics was used to describe the data.

The content validity index for items (I-CVI) proposed by Lynn's (1986) seminal study was utilised as a method of quantifying the experts' degree of agreement regarding the content relevance of the CPAP (Polit & Beck, 2006:490). Participants were asked to rate their level of agreement with statements related to the content of the CPAP. A four-point Likert-scale was used offering options (4) strongly agree, (3) agree, (2) disagree and (1) strongly disagree. The expert participants' level of agreement of each item included in the CPAP was calculated for each individual question by calculating the mean I-CVI. The I-CVI is computed as the number which experts give as a rating of either 3 or 4, divided by the total number of experts. A content validity index for items (I-CVI) of 1.00 was achieved on 24 of the items and an I-CVI of 0.91 was achieved for nine of the items. Polit and Beck (2006:491) recommend an I-CVI of more than 0.78 when there are more than six experts. The content and technical format of the CPAP was therefore considered valid by the experts.

Experts suggested minor revisions regarding the clarity of items, therefore the CPAP was adapted accordingly.

In phase three the data analysis for the student primary clinical practitioner's opinions were measured quantitatively by using descriptive statistics. They completed a questionnaire with specific data on their opinions regarding portfolio-based learning. The STATISTICA version 11 statistical package was used by the statistician for the capturing and calculation of the assessment of the students.

1.10 ETHICAL CONSIDERATIONS AND APPROVAL FOR THE STUDY

Ethical approval for conducting the research study was obtained in writing from the following institutions and participants:

- Health Research Ethics Committee of Stellenbosch University (Appendix A)
- The Provincial Government of the Western Cape (PGWC) Research Department for the research sample consisting of the primary clinical practitioner participants from four clinical facilities (Appendix B)
- The Registrar of Stellenbosch University for participation of the primary clinical practitioner students (Appendix C)

- Participant information leaflet and consent form for the expert participant (Appendix D)
- Participant information leaflet and consent form for the student participant (Appendix E)

The research study was guided by the following ethical principles:

1.10.1 Respect for the autonomy and dignity of persons

Participation in the research activities on the part of all participants was voluntary. Participants were informed by the researcher that they had the right to withdraw at any stage of the study without penalty. Informed consent to participate in the research was requested personally from all the participants by the researcher after the nature, purpose and data collection method of the research were discussed with them. After agreeing to participate in the study, members of the primary clinical practitioner and nursing education expert participant groups, and members of the student participant group, completed the participant information leaflet and consent form for each of the participant groups (Appendices D and E respectively).

1.10.2 Right to confidentiality and anonymity

Privacy and confidentiality were respected and maintained with no personal details, for example the names of the participants were not required or did not appear on the questionnaires. The researcher identified respondents by using numbers to ensure anonymity and informed the participants that the data could not in any way be linked to them. All the questionnaires were collected personally by the researcher after their completion by the participants. Participants were assured that the raw data would be managed and stored safely by the researcher in a locked cabinet.

1.10.3 Right to protection from harm and discomfort

The researcher ensured that the study posed no threat to the safety of the participants. All the questions asked by them were answered honestly by the researcher. Participants were also able to contact the researcher with any questions about the study that they were unsure of throughout the duration of the data collection process. This was in line with the definition of Burns and Grove (2011:118) of the principle of beneficence: “one should do ‘good’ and prevent any harm coming to the participants”.

1.11 DEFINITION OF TERMS

The following terms were utilised to structure the research:

Clinical practice assessment portfolio: Refers to a collection of evidence embedded in the principles of experiential learning which can be described as a recurring process of documenting, reflecting on, and ultimately learning from events and experience over time. The teacher's role in this learning and assessment model is not primarily to pass on knowledge, but to ensure that learning is taking place. Portfolio learning enables students to assess their strengths and weaknesses and to meet their learning needs (McMullan, 2003:334-335).

Development: Refers to a learning process that can be described as a recurring process of documenting, reflecting on, and ultimately learning from events and experience (Elango, Jutti and Lee 2005: 513). For this study development included the literature review, validation by experts and describing student primary clinical nurse practitioners' assessment of the possible contribution of the developed CPAP to their learning.

Primary clinical practitioner: Refers to a registered nurse who has completed the post-graduate Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care, according to Regulation 48, 22 January 1982 as amended by R.1432, R. 2653, R. 2189 and R.71 (Geyer, Naude & Sithole, and 2002:12). The work of primary clinical practitioners encompass population health, which includes health promotion, disease prevention, wellness care, first point of contact care and the management of disease across the lifespan of patients (Strasser, London & Kortenbout, 2005:134). Primary clinical practitioners are working collaboratively and autonomously in the health sector to prevent disease and disability (ICN, 2006:15).

Student primary clinical practitioner: Refers to an individual undergoing the post graduate training for the Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care, according to Regulation 48, in terms of section (1) of the Nursing Act, 1978 (Act 50 of 1978). The course is offered to registered nurses who have completed a baccalaureate or diploma programme (Geyer, Naude & Sithole, and 2002:12).

Nurse specialist: This level requires an in-depth knowledge and expertise in a specific practice area such as primary clinical care nursing. To become a nurse specialist requires a post-graduate diploma in the specific specialisation. This qualification will yield a professional

registration with the Council as a nurse specialist (SANC's Draft Position Paper/Statement: 2012: np).

Comprehensive primary health care: The integration of preventative care with curative services (Hattingh, Dreyer & Roos, 2008:61).

Primary health care (PHC): Essential health care based on scientifically sound and socially acceptable methods and technology. PHC must be universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford (Hattingh, Dreyer & Roos, 2008:61).

Expert: A person who possesses special skills or knowledge (Oxford English Dictionary, 2005: 293).

1.12 DURATION OF THE STUDY

Ethical clearance for approval of the study was obtained on 23 November 2010 (Appendix A).The data gathering process commenced after ethical clearance was obtained from the PGWC, Research Department on 6 June 2011 (Appendix B). The implementation of the CPAP for evaluation by students took place from 1 March 2012 to 31 May 2012.The final draft of all of the chapters of the study was completed and sent to the editor for language and technical corrections on 23 August 2013.

1.13 CHAPTER OUTLINE

Chapter one: In this chapter the background to the study, the problem statement, research question, research design and methodology are described and discussed.

Chapter two: This chapter presents a critical review of the available literature dealing with the leadership and competence role of the primary clinical practitioner with portfolio development.

Chapter three: The research design and methodology for the development, validation and evaluation of portfolio learning are described and discussed.

Chapter four: The chapter includes the presentation, analysis and interpretation of the results of the data collection.

Chapter five**:** The final chapter presents the research synthesis, conclusions and recommendations based on the study.

1.14 SIGNIFICANCE OF THE STUDY

Both the leadership roles and the competence of primary clinical practitioners are critical to the provision of high quality primary clinical care. In a PHC facility, a clinical portfolio is one of the evaluation tools that can be used by nurse educators to ensure that student primary clinical practitioners are able to achieve their clinical learning outcomes. A clinical portfolio aims to integrate theory and practice and to ultimately display a collection of the achievements representing the nursing student's learning, knowledge and skill development over time (McMullan, 2003:335).

Since a literature search for portfolio learning and assessment studies revealed that there are few local research studies in this field, the researcher believes that this study could make a contribution to primary clinical care nursing education in South Africa to develop an evidenced-based tool that can be implemented for use to improve assessment and competence.

1.15 SUMMARY

In this chapter the researcher presented an overview of the background, research problem and the aims and objectives of the study. The discussion included a brief introduction to, and description of, the research design and methodology. A description of the ethical considerations operating and addressed in the conducting of this study, and the obtaining of ethical approval for the study, were presented. The following chapter will present a review of the available literature on the leadership and competence roles of primary clinical practitioners on existing portfolio models and portfolio development, and on the value of portfolio-based learning in the development of these roles for student primary clinical practitioners.

1.16 CONCLUSION

The study was conducted in PHC facilities and HEIs in the Western Cape. The focus of this study was on portfolio development and on investigating and establishing the value of portfolio-based learning for primary clinical practitioners. The main focus was the development of a CPAP to be used as an educational tool in the training of student primary clinical practitioners. The gap identified in the literature by the researcher with regard to local and international studies on portfolio development for primary clinical practitioners to facilitate clinical competence will be explored in the next chapter.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

This chapter presents a review of the literature related to the aims and objectives of this research study. Literature on portfolio-based learning suggests that globally the use of portfolios to demonstrate competence in nurse education is becoming widespread and that the debate around, and studies on the value, purpose, assessment and validity of the content of portfolios are ongoing (Webb, Endacott, Gray, Jasper, McMullan & Scholes, 2003:604; Sowter, Cortis & Clarke, 2011:872).The primary objective of this chapter is to identify, compare and discuss the literature relating to the development of portfolios and the value of portfolio learning for student primary clinical practitioners. In order to gauge the relevance and value of this study for primary clinical nurse education in South Africa the researcher also aimed to identify the gaps in research done in this area.

2.2 REVIEWING AND PRESENTING THE LITERATURE

The literature review process involved searching for and identifying available relevant scientific literature that would develop the researcher's knowledge and understanding of the portfolio as a learning and assessment tool in the context of the training of student primary clinical practitioners. The search strategy involved the use of databases including EBSCOHost, Science Direct, Pubmed, as well as accessing relevant journals through online library services at the University of the Western Cape. Search terms used included: clinical competence, competencies, portfolio development, primary clinical care and content validity. The literature for review included grey material such as books, policy and curriculum documents which provide the framework for primary health care (PHC) in South Africa. It also included guidelines regarding the global context of primary clinical nursing from the International Council of Nurses (ICN) and the World Health Organisation (WHO).

The search revealed a number of quantitative and qualitative research studies published between 2003 and 2013 on portfolio learning for undergraduate nurses worldwide. However, only a few of these studies focused on clinical portfolios for postgraduate primary clinical practitioners and the required competencies. Four studies were found on this subject in South Africa.

The findings from the literature review are presented under the following headings:

- The portfolio development process
- Concepts supporting portfolio development in primary clinical nursing

Information and recommendations from this review assisted the researcher with the preparation of the content of the clinical practice assessment portfolio (CPAP), (Appendix H) and helped with information for both the analysis of the content validity of the CPAP and the value of portfolio learning for primary clinical practitioners (chapter four). The review also formed the basis for identifying the recommendations and suggestions for future practice in the design and use of portfolios in primary clinical nursing programmes as set out in detail in chapter five.

2.3 THE PORTFOLIO DEVELOPMENT PROCESS

2.3.1 Authentic methods of assessment

Clinical education is a vital component of the curriculum of pre – and post registration nursing courses. Recent literature suggests that clinical assessment has remained a challenge on a global scale (Coffey, 2005:75; Oermann et al., 2009:74). The authors found that assessment in a nursing education context has traditionally depended on the observation of the clinical performance of one individual by another individual. The authors argued that this form of assessment can result in bias on the part of the observer. Since the time of their study on methods of assessment in a clinical nursing education context, a variety of methods of clinical assessment have been developed in an attempt to overcome this bias problem. These include checklists and continuous clinical assessment (Oermann et al., 2009:74).

Byrne, Schroeter, Carter and Mower (2009:545 - 547), stated that the development of reliable measurements of a student's clinical performance, as well as measurements that have predictive value for subsequent clinical competence, should remain the goal of assessment. They argued that it is essential that assessment tools are carefully planned against learning objectives and that they also match the competencies demonstrated by students. The reliability of the assessment tool is a measure of the consistency of what it is supposed to measure and this measuring process can be influenced by numerous factors (McMullan & Scholes, 2003:604-605). Validity on the other hand, concentrates on whether testing or an assessment tool actually succeeds in testing the competencies that it is designed to test. The authors concluded that there are no valid assessment methods that measure all facets of clinical competence and

that a portfolio of evidence has been introduced as an additional and complementary tool in the assessment of clinical competencies.

A study conducted as early as 1998 by Wenzel, Briggs and Puryear (1998:212) describes how professional nursing education in the past was based on the transmission model in the teaching and learning of theoretical knowledge and skills. At the time the authors supported the view that an authentic assessment method, such as portfolio-based learning, had shifted nurse education from a transmission model and a teacher-centred approach to a more student-centred learning experience. They claimed that the traditional assessment methods such as checklists, tests and essays do not assess a sufficiently wide range of a student's strengths, knowledge, abilities and experience. Their study also identified portfolio development as an authentic developmental assessment method, which allows students to value their own lifelong learning, develop self-reflection and improve collaboration between academic staff and the student. They suggested that, in addition to these advantages, a portfolio gives faculty an opportunity to track the continuous progress and development of students, rather than relying on tests and yearly examinations.

An international study (Elango, Jutti & Lee, 2005:511) advocated the use of the portfolio as a document or collection of evidence, as well as a valuable learning tool. They identify portfolio-based learning as an approach firmly embedded in the principles of experiential learning. A learning process can be described as a recurring process of documenting, reflecting on, and ultimately learning from events and experience. The teacher's role in this learning and assessment model is not primarily to pass on knowledge, but to ensure that learning is taking place. The authors argue that portfolio learning enables medical students to assess their strengths and weaknesses and to meet their particular learning needs (Elango, Jutti & Lee, 2005:511-512).

2.3.2 The context for portfolios

Norman (2008:2-3) suggests that the actual experiences of nurse practitioners play an important part in ideas about how these practitioners learn and develop knowledge appropriately and specifically to their field. Practitioners may become aware of a deficit in their skills and knowledge when they encounter a particular experience in the field. These deficits contain the possibility of becoming a learning experience for practitioners in the process of their development of more competent practice. (Norman, 2008:2) identifies the following experiential

learning strategies which may be applied in clinical nursing education programmes to make up for the deficits in experience and competencies:

- reading to expand further knowledge and support for practice
- observing another experienced practitioner or a mentor
- clinical supervision by a mentor
- asking questions in the clinical field and in the classroom
- undertaking a simulated experience with peers
- reflection in and on action and experience in specific contexts.

According to Norman (2008: 2-3), in this experiential process students can actively build on their own knowledge based on their ongoing experiences, with their learning taking place and grounded in the social and cultural context in which the students find themselves. The author argues that changing ideas about knowledge and experiential learning have been a key factor in the increasing use of portfolios in various clinical contexts and for different purposes.

2.3.3 Content of portfolios

In terms of the content and form of a portfolio, McMullan, Endacott, Gray, Jasper, Miller, Scholes and Webb (2003:288) suggest that a portfolio consists of gathered evidence, demonstrating changes in a student's performance due to his or her active involvement in the process of learning and the outcomes achieved. Byrne, Schroeter, Carter and Mower (2009: 545 - 546) also see a portfolio as a collection of personal documents, and argue for certain benefits of using this form of assessment and learning, such as its demonstration of critical thinking skills and learning over an extended period of time. They argue that these cannot be illustrated or quantified by traditional methods, such as grading or tests.

Oermann (2002:73-74) advocated that portfolios by nurse practitioners should be prepared in such a manner that the individual is able to monitor her or his own growth and development. The advantage of the portfolio is that it is a kind of learning and assessment tool that documents evidence of competencies in an ongoing way. The student is therefore able to assess whether further learning is needed in terms of equipping her or him for competent and effective clinical nursing.

Byrne et al. (2009: 545 - 546) confirm the view of a portfolio as a record that presents a picture of a student's experience in a developmental situation, which can be a record of a student's personal and/or professional development. A portfolio may provide a logical flow of previous

learning and experiences that may be of benefit for a career advancement portfolio and for maintaining a professional profile. The definitions of the purpose and content of a portfolio indicate that the content and style of a portfolio can vary according to its intended purpose or purposes (Webb, Endacott, Gray, Jasper, McMullan & Scholes, 2003:604; Sowter, Cortis & Clarke, 2011:872).

2.3.4 Types of portfolios

According to Norman (2008:22) a portfolio is a private collection of evidence which demonstrates the continuing acquisition of skills, knowledge, understanding and achievement. It is both retrospective and prospective, as well as reflecting the current stage of development and activity of the individual.

2.3.4.1 Professional portfolio

A professional portfolio, also known as a retrospective portfolio, includes more information than just a resume or curriculum vitae. Oermann (2002:73) describes a portfolio as that which provides an indication of the competencies and experiences of the individual. According to Oermann's portfolio model (2002:73), the portfolio demonstrates the career path of the nurse and contains his or her job applications, yearly performance reviews, accreditations, primary and ongoing certification and situations in which other people will be reviewing the portfolio. A growth and development portfolio, also known as the prospective portfolio, is designed to document the continuous evidence of an individual's experience and competencies.

2.3.4.2 Clinical practice assessment portfolio

Love and Cooper, (2004:68) identify that a clinical practice assessment portfolio (CPAP) should include areas of skills development, learning outcomes, learning strategies, performance indicators and a collection of evidence to identify if performance indicators have been met. For the integration of theory into practice learning strategies should include activities such as self - directed problem solving activities, reflective journaling, peer assessment, oral presentations and clinical skills evaluations.

2.3.5 Theoretical basis for portfolio development

The seminal work done by Cayne (1995:397) on the topic, proposes that the development of the student can be a progressive, continuous process emanating from her or his previous experiences. Portfolio preparation could be viewed as an initiative to start the process of the student clinical nurse's development through a process of self-directed learning that will

ultimately lead to meaningful transformation of the nurse. Accordingly, the experiences and personal development of nurses will directly influence their professional roles, and ultimately the quality of the nursing care rendered by them. The author identifies the theoretical basis for portfolio-based learning as underpinned by the four assumptions of the theory of adult learning:

- Self- concept: the student is moving towards becoming a self-directed individual
- Experience: the student's past expriences are a rich resource for learning
- Readiness to learn develops from life tasks and problems
- The student demonstrates curiosity and is self-motivated to grow and achieve.

Casey and Egan (2010:550) identify that portfolio preparation may help nurses to learn to value their experiences as part of their learning through reflection, and consequently to value themselves. Not all students will display these assumptions or motivations, but they can be developed in an environment where the portfolio process is sensitively and effectively facilitated. The authors see these adult learning characteristics as being worthy of nurses working in the community, due to their taking on more complex and autonomous roles within the community.

2.3.6 The potential benefits of portfolio development for the student

Citing a number of different benefits, many studies have reported on the value of introducing a clinical portfolio in nursing education. Coffey, (2005:76 -77), McMullan (2006:334), McCready (2007:143), Oermann et al. (2009:353), Byrne et al. (2009:545-546) and Sowter et al. (2011:872) all agree on the following potential benefits for nurses applying portfolio-based learning:

- The development of critical reflective practice
- Self directed, lifelong learning (in which the learner is central to the learning process)
- The construction of own clinical knowledge by the student
- A means of facilitating discussion between the clinical facilitator, lecturer and student
- Facilitating an increase in the student's accountability, authority and responsibility
- The student's up to date best work able to be compared with past work
- The individual's development of self–assessment skills.

Studies which focus specifically on these potential benefits will be discussed in more detail in the following section.

2.3.6.1 The development of critical reflective practice

Reflection–in-action refers to a nurse's ability to "read" the patient in terms of how he or she is responding to the nursing intervention, and to the nurse's ability to adjust the intervention based on that assessment in a real clinical situation. Reflection-on-action, and subsequent clinical learning, completes the learning cycle, showing both the clinical teachers and the students, what was gained from their experience. To engage in reflection requires a sense of responsibility and the ability to connect one's actions with outcomes (Tanner, 2006:234).

Norman (2008:15-22) views reflection as a mental process, functional in addressing complex problems for which no obvious solutions are current or available, and is therefore strongly linked to experiential learning. In order to develop and strengthen a student's ability to reflect in a constructive and analytical way, the portfolio would need to include tools for the student to do this, as well as verification that the student has developed a reflective approach to practice (Tanner, 2006:234). This could include evidence of verbal reflection through peer review, or supervised sessions of reflective writing. The author believes that each clinical experience is an opportunity for clinical learning, but that the student must be supported by the clinical teachers in developing the habit and skill of reflection-on–practice.

2.3.6.2 Self-directed, life-long learning

McMullan (2003:334-335) argues that, to facilitate the development of life-long experiential learning, action plans, reflective writing, peer evaluation and self-assessment learning are necessary. One of the fundamental purposes of a portfolio is to develop the student's capability to be a self-directed and lifelong learner, and the development of study skills are vital to this process (Norman, 2008:37). Because this profound and ongoing process of learning is facilitated by experience-based and reflective approaches, it is encouraged by the use of portfolio development and assessment in nursing programmes.

According to Norman (2008:37-40-44), practical learning occurs when there exists a space between a learner's previous biographical experiences and the experiences with which she or he is faced in a new area or aspect of practice. According to this model, when thinking about new experience and practice, learners should reflect upon and recall previous learning and experience to see whether the knowledge, skills, approach and values previously gained and applied, can be transferred to this new situation.

McMullan (2006:334-334), identifies that the use of portfolios that foster reflection on the relationship between practical experience and theoretical learning can go a long way towards narrowing the practice theory divide. The author reports that the relationship between reflection and learning allows students to actively display self-directedness, voice critical opinions, and interpret and evaluate their clinical knowledge.

2.3.6.3 Construction of her/his own clinical knowledge by the student

The context of the process of portfolio development by both clinical teachers and students, emphasizes the integration of theory and practice, making clinical practice integral to academic learning (Joyce, 2005:462). He argues that building portfolios can encourage students to reflect critically on their decision-making skills and to move forward with action planning. These skills can foster a willingness to embrace change and sets the student up for long term professional development. According to Timmins and Dunne (2008:344) portfolio learning provides students with opportunities to link theory to practice, thus developing and demonstrating a student's ability to think critically, communicate effectively, and assisting the student with the implementation of appropriate nursing activities and interventions in a clinical context.

2.3.6.4 A means of facilitating discussion between the mentor and student

Joyce (2005: 460) suggests that the mentor or clinical instructor should ideally be someone with whom the student can work comfortably in identifying and discussing his or her reflections on an experience in practice. The purpose of these discussions is to help the student to explore their experiences more critically. Through this process students are encouraged to make use of both theoretical concepts and their own competencies as a basis for their discussions with the mentor.

Timmins and Dunne (2008:344-345) identify the importance of a positive relationship between teaching staff and students for quality teaching and learning to take place. Portfolios provide for a conversation between student and mentor that can lead to a more meaningful and useful learning experience for the student. In the process of facilitating the introduction and use of portfolios, the role of the mentor is to provide constructive feedback, encourage, question, and facilitate the student's development and understanding of concepts through the use of the clinical portfolio. Norman, (2008:37-40) describes the role of the mentor in clinical practice as facilitating the transition of the mentee from novice to competent practitioner.

2.3.6.5 Facilitating an increase in the student's accountability and responsibility

Strasser et al. (2005:134) argue that primary health clinical nurses are seen as leaders in the community in which they practise. In this context their skills, among others, include the management and active participation in school health programmes and HIV/AIDS awareness campaigns. Joyce (2005: 460-463) considers that the continuous nature and active involvement in portfolio use on the part of the clinical nurse encourages accountability, while in the same way, Byrne et al. (2009:545) see a sense of responsibility also being developed in the clinical nurse through portfolio use.

According to Strasser et al. (2005:133), the extended and highly responsible nature of the advanced practices in a primary health context makes clinical nurses vulnerable to questions from professional and other bodies regarding their qualifications, knowledge and skills. In this context, the importance of evidence to demonstrate effective and safe practices on the part of the clinical nurses concerned is necessary, and the potential value of a portfolio to demonstrate best practice is evident in order to meet the requirements of professional bodies (Casey & Egan, 2010:550).

With the increasing demands for accountability from nurses by professional bodies, evidence of professional development is now being required by these bodies (Alsop, 2002:271). One way of being able to present this evidence is the maintenance of a portfolio. In this context Norman (2008:116) sees a portfolio as an asset to a nurse because it enables a nurse to demonstrate her or his past achievements and to make a favourable impression on the portfolio reader who will be persuaded that these can be replicated in future employment or education.

2.3.7 The potential challenges of portfolio development

Although the benefits of portfolio development and the use identified above have been experienced by both student and qualified professional nurses, portfolios present certain challenges. Mc Mullen et al. (2003:288) report on the following potential challenges presented by portfolios in the education context:

- The portfolio is time–consuming for both the learner and assessor
- Confusion about the types of evidence to be included within the portfolio
- Students are reluctant to engage in reflective practice
- Poor writing skills: portfolios may favour those with better writing and reflection skills
- Ethical issues of privacy and confidentiality with the assessment of portfolios.

Several researchers have suggested that the success of portfolio-based learning depends on whether students and mentors receive detailed and clear guidelines on the purpose, content, structure and presentation of portfolios (Timmins & Dunne, 2008:332-334). McMullan et al. (2003:335) emphasise that for portfolio requirements to be effective in terms of their implementation in practice, they must be transparent and user friendly for all those involved.

A South African qualitative study conducted by Gwele (2001:92-99) about graduate students in a community problem-based learning programme, revealed that, although students experienced confusion and stress in the development of their portfolios in the initial stages of preparation, the overall outcome showed that ultimately students found the process rewarding and empowering. Another qualitative indication about students' perceptions regarding portfolio preparation is that students agreed that the portfolio was useful, although the authors emphasize that motivated students and trained staff are essential for portfolio-based learning to succeed (Elango, Jutti & Lee, 2005:513).

Without comprehensive support and guidance, students and mentors can become increasingly demoralised and stressed. As a result, portfolios would not be very effective in developing and assessing the competence and learning of the students (McMullan, 2006:342). Thus, careful planning is necessary to ensure that nurses have a positive learning experience in developing and using portfolios. Furthermore, they view portfolio learning as a worthwhile tool for developing and demonstrating competence in an extended and ongoing way.

2.3.8 Guidelines for portfolio development to address the challenges and pitfalls

Even though the content and style of a portfolio may vary according to its intended purpose, it is imperative that it is organized effectively for learning to take place (Norman, 2008:70). Love and Cooper (2004:68) identify the following six sub processes as being useful in assisting students to build their portfolios. They suggest that these allow for transparency of assessment and can be useful in terms of predefined educational processes and outcomes:

- Identification of the areas of skill that a student intends to develop
- Development of specific learning outcomes from these skill areas
- Identification of learning strategies to be able to achieve learning outcomes
- Identification of performance indicators that establish whether the student has achieved his or her, learning outcomes
- Collection of evidence which demonstrates that the student has met performance indicators

- Organisation and presentation of a student's evidence and how it relates to performance indicators.

2.3.8.1 Organisation and presentation of a student's evidence in a portfolio

The portfolio folder should be sturdy and large enough for evidence to be inserted and located easily (Norman, 2008:70-71). The author suggests placing the portfolio contents in a ring binder which allows for the easy removal and adding of material. A clear logical indexing system should direct the reader to all the evidence submitted within the portfolio. Students should preferably use the same system throughout the portfolio to avoid confusion. Whichever system the student decides to use, it is important to ensure that the student is comfortable with it. The main focus when organizing a portfolio is to ensure that the material included corresponds to the requirements. If the requirements are part of an academic assessment, evidence is required to show the achievement of a learning outcome (Norman, 2008:70-71).

According to Love and Cooper (2004:76), students using portfolios for the first time need support and guidance in preparation for gathering and presenting the right sort of evidence, so that the learning criteria are aligned with those of the assessors. Byrne et al. (2007:26-27) therefore suggest that the collection of evidence in the portfolio be presented and maintained in an orderly and concise manner, as too much information can create problems and confusion. Love and Cooper (2004:76) specify the expected outcome of the presentation of the portfolio: it should be a unified portfolio of work that contains all the necessary elements of document structure, such as a table of contents and tables of evidence.

2.3.8.2 Identification of the areas of skill development

The principles of comprehensive primary care are embedded in the core functions and role of the primary clinical practitioner. The focus is on skills development and 'expert' knowledge in comprehensive primary health care (Geyer, Naude & Sithole, 2002: 13 -14).The aim of comprehensive care is to achieve health for all and includes three aspects as summarized in table 2.1 as follows .

Table 2.1: Principles, kinds and levels of comprehensive care

Principles	Comprehensive care	Levels of care
○ Equal access and equity ○ Participation of all ○ Involving all service sectors ○ Health promotion and disease prevention ○ Affordable, acceptable, appropriate care ○ Multi –disciplinary team	○ Health promotion ○ Disease prevention ○ Cure ○ Rehabilitation ○ Palliation ○ Protection from harm	○ Tertiary level Referral ↓ ○ Secondary level Referral ↓ ○ Primary level ↓ Family/Community

Source: *Principles of comprehensive health care* (Zweigenthal, Puoane, Reynolds, Coetzee, Duncan, Alperstein, Duncan, Atkins, Loveday, Hutchings, Geiger, Petersen, Ferguson, Hewett & Batley, 2009:8).

2.3.8.3 Development of learning outcomes to achieve the learning objectives

According to McMullan et al. (2004:289-299) the most important features of a portfolio are the selection, rationale and examples of the achievement of learning outcomes. Elango, Jutti and Lee (2005:511) suggest that the portfolio may include details of learning objectives, learning strategies, learning resources and how learning might be accomplished and assessed.

Norman (2008:29) advocates that as an assessment strategy, the validation within an educational portfolio that demonstrates that learning has taken place must directly correlate with learning outcomes. Assessment strategies and learning outcomes are two sets of statements that should be linked together so that assessment strategies are suitable for facilitating the attainment of the learning outcomes. For example, the more general the learning outcome statement is, the more detailed the assessment criteria will need to be to sustain achievement of the learning outcome.

McCready (2007:149) view the nursing education faculty of a higher education institution (HEI) as having a responsibility to ensure that the learning outcomes are presented in a student-friendly language that relate to the professional competencies, that are demonstrable and achievable in the clinical practice situation. The author suggests that a learning contract should be drawn up between the student and the teachers which should provide evidence of learning outcomes, time frames for assessment, and the resources needed to achieve the outcomes.

Students can bring a wide variety of previous learning, work and life experiences to the course that must be acknowledged (McCready, 2007:149-150). Identification of additional learning to achieve the outcomes can be done by preparing action plans that will also allow the clinical teacher to monitor the student's progress.

2.3.8.4 Identification of appropriate learning strategies to achieve learning outcomes

According to Norman (2008:29), portfolios have the potential to combine different assessment methods. The most valuable aspect of portfolios is the emphasis they place on experience as a learning opportunity. The author suggests that students be evaluated on their cognitive abilities, communication skills, psychomotor and technological competencies, values, and professional behaviours. For this reason, multiple strategies should be used for evaluation. Chabeli (2002:7) also suggests that the portfolio should contain a diverse set of information gathered across a variety of learning contexts, content areas, and forms of communication. If the portfolio does not include these, the full range of the student's abilities may not be revealed. Although it is important for supervisors and assessors to ensure that students in a completely new learning experience feel that they are assessing themselves to begin with in order to assume accountability for their learning, they will need specific direction, supervision and support in order to progress (Norman, 2008:13).

2.3.8.5 The collection of evidence to meet performance indicators

Evidence to demonstrate effective and safe practices on the part of a primary clinical practitioner is necessary for the professional development and recognition of such a practitioner, and the potential value of a CPAP to demonstrate best practice is that it is possible for it to meet the requirements of professional bodies (Casey & Egan, 2010:550).The evidence within a portfolio will permit the academic staff to measure the student's progress throughout the programme. In this context, the portfolio must provide critical reflections on the part of a student of incidents that are applicable to the student's learning, demonstrate self-directed learning, provide details of competence within the learning outcomes and the student's journey towards professional and personal development (Norman, 2008:48).

Thus, in order to ensure that the material included is a true reflection of the nurse practitioner, a portfolio must meet certain criteria (Wilcox & Brown, 2002:7). It should be:

- Valid - the competencies being demonstrated by the evidence should match the requirements of the education institution

- Sufficient – there must be an adequate amount of material for the assessor to make a judgement as to whether the level of a particular competency is adequate
- Authentic – work in the portfolio must be a result of the person's own effort
- Reliable – different assessors should be able to place a similar value on the evidence provided and make similar judgements when confronted with the same evidence
- Current – evidence submitted must be recent enough to be considered a measure of the current levels of competence of the student or practitioner.

The above criteria together constitute a valuable guide to both students and clinical instructors when using portfolios for the student or practitioner to gain academic credit for prior learning from a higher education institution or as part of self-evaluation (Casey & Egan, 2010:550).

2.3.9 Concepts underpinning and supporting portfolio development in primary clinical nursing

2.3.9.1 The competence role of primary clinical practitioners in South Africa

Specialty nursing practice includes multiple professional roles, which frequently evolve differently from generalist roles, such as: leadership, educational and research roles which are often undertaken by nurses with expanded knowledge and experience in a speciality (Byrne et al., 2009:547). Using portfolios as evidence of the scope and depth of a practitioner's practice is more illustrative of competency in those varied roles than would be a record of mainly summative assessments obtained by the practitioner during a traditional clinical nursing course.

A report by the District Health Barometer on the 'Nurse Clinical Workload' indicates that the work done by nurses at the district level is in all probability the single most significant factor contributing to and enabling the delivery of primary health care in South Africa (Day, Barron, Monticello & Sello, 2009:29).

The primary clinical practitioner is often the first and only health professional to see clients in the various public clinical facilities. Thus, the role of the primary clinical practitioner is multifunctional, and includes empowerment and development of individuals, families and communities, as well as assessment, diagnosis, treatment (prescription of medication), health promotion and referral (Geyer et al., 2002:11-12).

The leadership role of PHC nurses with respect to HIV/AIDS and TB in South Africa is critical, as identified in the Primary Health Care Support programme launched by the Minister of Health

on 14 September 2011. The Health Department is planning to improve the health system by providing service delivery on a 're-engineered' PHC system. This may address specific health care challenges faced by the South African people more effectively and comprehensively. This 're-engineering' of the health care system will include the deployment of teams of specialists to each district. In this new system the PHC nurse has been identified as one of the key specialists to deliver health care to the communities (Primary Health Care Sector Support Programme, Minister of Health, September 2011).

2.3.9.2 The International Council of Nurses (ICN) Framework of Competencies

The ICN Framework of Competencies (2009:4) was developed to identify competencies for registered nurses working in specialist clinical roles. Table 2.2 below reflects the grouping of the framework of competencies for the Nurse Specialist.

Table 2.2: Framework of Competencies for the Nurse Specialist

PROFESSIONAL, ETHICAL, LEGAL PRACTICE	Accountability Ethical practice Legal practice
CARE PROVISION & MANAGEMENT	**Key principles of care** Health promotion Assessment Planning Implementation Evaluation Therapeutic communications and relationships **Leadership and management** Inter- professional health care Delegation and supervision Safe environment
PROFESSIONAL, PERSONAL & QUALITY DEVELOPMENT	Enhancement of the profession Quality improvement Continuing education

Source: Adapted from the ICN Framework of competencies for the Nurse Specialist (2009: 5-9)

It is recommended at master's degree for entry level as a nurse specialist that the role includes a nurse prepared beyond the level of general nursing who is authorised to practise as a specialist with advanced expertise in a branch of the nursing field ICN (2003:5). This includes clinical, teaching, administration, research and consultant roles.

The following three tables (table 2.3, 2.4 and 2.5), constitute an overview of the literature according to the pillars of the ICN Framework of Competencies (2009) adapted for the expanded role of the primary clinical care practitioner.

2.3.9.3 Professional, ethical and legal practice of the primary clinical practitioner

Professional accountability is described as the responsibility and conditional liability for acts and omissions during clinical actions performed which also implies willingness to be judged against professional rules and norms (Muller, 2003:53). Searle (in Muller, 2003:53) outlines the levels at which accountability for actions occur:

- Self – the clinical practitioner have to live with the consequences of his/her nursing actions
- Patient- the patient trusts that the nurse will implement the correct nursing actions
- Employer - has an obligation to ensure that PHC nursing staff will do their patients no harm
- Legal system - protect the patient at all times and the clinical practitioner will be answerable for your actions
- SANC - instituted to protect the patient; nurses must abide by policies and procedures.

The primary nurse practitioner is obliged to adhere to the Batho Pele principles that the South African government has adopted as part of a plan to change the public sector service delivery by 'putting people first'. The principles are based on the Constitution and on the White Paper for the Transformation of the Health Services (1995). In the health sector, the Patients' Rights Charter (1999) seeks to put the principles of Batho Pele in place by prescribing a set of rights and responsibilities for users of health care (Alperstein et al., 2009:283).

Table 2.3: Professional, ethical & legal framework utilized for the development of the CPAP by the researcher adapted from the literature review

PROFESSIONAL, ETHICAL & LEGAL PRACTICE		
ACCOUNTABILITY	ETHICAL PRACTICE	LEGAL PRACTICE
○ Ethics ○ Demonstrate the importance of quality nursing practice ○ Own values: honesty, integrity, human dignity, caring, ○ Public interest: protection from harm ○ Functions according to policies & procedures of the PHC facility	○ Apply Batho Pele principles ○ Adhere to code of ethics & conduct in primary care nursing practice. ○ Patients' Rights Charter ○ Advocacy role ○ Privacy and confidentiality ○ Equality ○ Informed consent ○ Named health care provider ○ Refusal of treatment ○ Continuity of care ○ Positive role model ○ Value cultural diversity in clients. ○ Non –judgmental, empathy, respect	○ Maintain registration with SANC ○ Regulation 48, Clinical Nursing Science, Health Assessment, Treatment and Care ○ Nurses Act (33 of 2005) ○ Regulation 2598 Scope of practice ○ R387 Acts & omissions ○ R777 Medicine and related substances ○ R2418 Keeping, supplying, administering or prescribing of medicines ○ Choice on Termination of Pregnancy Act 92 of 1996 ○ National Drug Policy (Department of Health, 1996) ○ National Health Care Act (2003) ○ The Primary Health Care Package (Department of Health, 2001a) ○ Norms and Standards for Primary Health Care and Clinics in South Africa (Department of Health, 2001b) South African Qualifications Authority ○ National Qualifications Framework Act (Act 67 of 2008)

Source: Jarvis, (2008:1-11), Muller, (2003:52-64) and Bickley (2009:3-392)

2.3.9.4 Key principles of care and management of the primary clinical practitioner

The emphasis of the Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care programme is on the development of the clinical competencies of the primary clinical practitioner to render a comprehensive service in the clinics (SANC, 1993a). In this context

Geyer, Naude and Sithole (2002:14) conceptualise the focus on the development of skills and expert knowledge for the clinical practitioner as follows:

- Comprehensive assessment of a client, including history taking, collection of psychosocial data, and physical examination, as well as the necessary diagnostic investigations
- Knowledge of the pathology, aetiology and epidemiology of the most common diseases in the country, including emergencies in all age groups
- Diagnosis of health and diseases through clinical analytical thinking and decision-making
- Treatment and management of health and diseases of all age groups, including non-pharmacological and pharmacological actions
- Referral of patients to other members of the multidisciplinary team when necessary to render a comprehensive service, e.g. medical practitioner, social worker, occupational therapist
- Development of interpersonal and counselling skills
- Medico-legal aspects and ethical decision-making
- Professional, leadership and research development in this field
- Research theory and research project
- Management of a health facility (clinic)
- Health promotion and disease prevention based on principles of epidemiology and risk factors within the population.

A primary clinical practitioner requires strong history taking, diagnostic and management skills to render curative skills. These include effective communication and public health skills to render preventative care (Strasser et al., 2005:134-135). This process requires faster, more efficient health assessment skills that are grounded in a holistic approach. Jarvis (2008:7-9) describes how, in a holistic model, assessment factors are expanded to include aspects such as the correct “culture and values, family and social roles, self-care behaviours, job-related stress, developmental tasks, failures and frustrations of life”. The author thus considers natural progression to health promotion and disease prevention to be at the core of nursing practice.

Table 2.4: Primary clinical care framework utilized for the development of the CPAP by the researcher adapted from the literature review

NURSING PRACTICE (PROVISION & MANAGEMENT) **KEY PRINCIPLES OF CARE**	
Provision of Primary clinical care nursing	**Leadership and management**
○ Utilizing a body of knowledge: anatomy, physiology , pathophysiology & psychology ○ Applying principles of comprehensive PHC ○ Acquisition of PHC clinical skills utilising the 4 cardinal examination techniques ○ Application of PHC nursing science as internalised in daily clinical practice ○ Application of the nursing process: assessment, planning, implementation and evaluation ○ Applying critical thinking, decision making and evidence based practice ○ Reflective practice ○ Problem solving ○ Promote wellbeing **Health promotion** ○ Applying health promotion principles **Therapeutic communications and relationships** ○ Good interpersonal skills patient, family, communities	**Inter- professional health care** ○ Interdisciplinary teamwork ○ Effective communication ○ Coordination of activities & teamwork ○ Good interpersonal skills **Delegation and supervision** ○ Initiating and responding to referrals **Provision of a safe environment** ○ Applying pre-requisite knowledge ○ Identification of patient ○ Adherence to infection control principles ○ Applying risk management protocols ○ Sound clinical judgment ○ Independent practitioner with the skills, knowledge and attitudes to manage a unit.

Source: Wilson & Giddens, (2009:580-590), Cooper & Love, (2004:76), Tanner, (2006:234)

2.3.9.5 Professional, personal and quality development of the primary clinical practitioner

In 2008, the ICN in a statement on 'Nurses Leading Primary Health Care' emphasised the critical importance of competence and leadership among PHC nurses (ICN, 2008:7-8). With the increasing demands of primary health care, accountability from nurses by professional bodies and evidence of nurses' professional development is now being required by these bodies (Alsop, 2002:271).

Table 2.5: Professional, personal and quality development framework utilized for the development of the CPAP by the researcher adapted from the literature review

PROFESSIONAL, PERSONAL & QUALITY DEVELOPMENT		
Enhancement of professionalism	Quality improvement	Continuing education
○ Career management ○ Portfolio development ○ Life - long learning ○ Excellence ○ Research ○ Academic enquiry ○ Continuing professional education ○ Clinical competence ○ High standard of care ○ Job satisfaction ○ Transformative learning	○ Evidence-based practice ○ Reflective practice ○ Updating Primary clinical care knowledge & skills ○ Self- assessment ○ Novice to expert level (Benner, 1984) ○ In service education ○ Quality improvement attitude	○ Management skills ○ Empowerment ○ Effective leadership skills

Source: Geyer, Naude & Sithole (2002:12-14); Norman (2008:15-22); Mash, Blitz, Kitshoff & Naude (2010:10-89)

2.4 SUMMARY

This chapter has presented a review of the literature relating to the development of portfolios and to the value of portfolio learning for student primary clinical practitioners. Those studies

reviewed that have explored the use of portfolios in nurse education have demonstrated and generated positive results in terms of ongoing learning and evidence of competencies and skills.

2.5 CONCLUSION

It can be concluded from the literature that a clinical portfolio can be a valuable learning and assessment tool and provide an alternative and developmental method of assessment and learning for the leadership and competency roles of student primary clinical practitioners, as well as professional clinical practitioners. It can therefore be argued that there is room for the research and development of a CPAP appropriate to the South African context of clinical nursing education, particularly in the changing context of PHC which requires expanded competencies of primary clinical practitioners. In chapter three the research design and methodology are discussed.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

In chapter one an overview of the research study was presented, followed by a literature review in chapter two. This chapter focuses on the research process and method used for the development, validation and possible contribution of the developed CPAP for the training of student primary clinical practitioners. A quantitative research design was adopted to guide and facilitate this study. The exploratory and descriptive research process will be described and discussed in three phases.

This chapter orientates the reader to the study by providing an introduction to the research design, the research aim and the research objectives. Thereafter the research approach, the population and sampling, and the inclusion and exclusion criteria are discussed. These are followed by the data collection tools, pretesting of the instruments, the reliability and validity of the study, the data collection process, data analysis and a summary of the study.

3.2 RESEARCH AIM

The aim of this study was to develop a CPAP for the Clinical Nursing Science, Health Assessment Treatment and Care programme.

3.3 RESEARCH OBJECTIVES

The aim of this study was achieved through the following objectives:

Phase 1: To develop a CPAP for student primary clinical practitioners from a review of the literature.

Phase 2: To validate the CPAP based on the opinions of expert participants in the field of primary health care and education.

Phase 3: To describe student primary clinical practitioners' assessment of the CPAP's possible contribution to their learning.

3.4 RESEARCH METHODOLOGY

A detailed description of the research methodology is given in the sections below.

3.4.1 Research design

A research design can be described as a small number of prepared formulas from which researchers can select one or more that are appropriate to meet their particular research goals and objectives (De Vos, Strydom, Fouche & Delport, 2005:143). The research questions that the researcher explored and intended to answer in this study, were: What content should be included in a CPAP for student primary clinical practitioners based on the literature and expert opinion and how do student primary clinical practitioners assess the possible contribution of the developed CPAP to their learning. The questions, aim and objectives informed the research design used for this study, namely a quantitative research methodology, with an exploratory descriptive design.

Burns and Grove (2011:29) identify that quantitative research is a prescribed, objective, organized approach using numerical statistics to acquire information about the world, conducted in an order to describe and explore the relationships between concepts or events. The quantitative approach adopted, allowed the researcher to do a comprehensive investigation into, and validation of, the CPAP as a teaching tool for student primary clinical practitioners. The research process will be described in the following three phases as illustrated in figure 3.1 below.

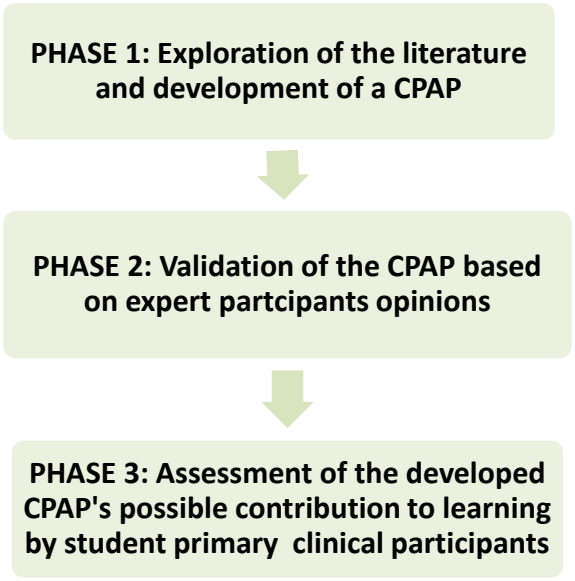

Figure 3.1: Phases of the research design

3.4.2 Phase 1: Exploration of the literature and development of a CPAP

Polit, Beck and Hungler (2001:19) state that, while both exploratory and descriptive research begin with a phenomenon of interest, exploratory research is undertaken to investigate the full nature of the research problem and the related factors. The exploratory approach was considered appropriate for phase one of the study as its purpose is to explore, and generate new knowledge of, and insights into portfolio learning for primary clinical practitioners. McCready (2007:143) sees a literature review as a valuable contribution to, and source of information of the current knowledge of a problem. It further provides an opportunity for the researcher to locate and synthesise evidence from primary studies on what is known and not known about the research problem in primary clinical care. McCready (2007:143) indicates that it allows the researcher to locate and synthesise evidence from primary studies on what is known and not known. Burns and Grove (2011: 189) further suggest that it also increases evidence based nursing practice.

After the review of the relevant literature was completed, the researcher developed a framework for a CPAP as discussed in chapter 2 (table 2.3; 2.4; 2.5). This framework guided the researcher in the development of the items that were included in the CPAP. The final product was a professionally typed CPAP with instructions and guidelines (Appendix G).

3.4.3 Phase 2: Validation of the CPAP by expert participants

Quantitative description demonstrates the size, incidence, prevalence and measurable attributes of a phenomenon. Descriptive investigation further allows the researcher to observe, count and shed light on the ways in which a research problem is manifested (Polit et al., 2001:19). In phase two, the validation of the CPAP was done, involving a panel of expert participants.

Wynd, Schmidt and Atkins Schaefer (2003:508) view content validation as a valuable step in the development of a CPAP because it provides a method for linking abstract concepts with indicators that can be observed and measured. The process includes the presentation of a questionnaire to a panel of experts in a specific field and to seek their opinion on a specific issue (Hsu & Sandford 2007:1-2). The authors suggest that one of the advantages of the process is that it allows for the experts to give feedback without the necessity of meeting. Their comments are obtained through anonymous surveys that may lead to consensus.

3.4.4 Phase 3: Assessment of the developed CPAP's possible contribution to learning by student primary clinical practitioners

According to Burns and Grove (2007:34-35) descriptive studies are conducted with large numbers of subjects. This particular design was considered appropriate for this study because the large number of students constituting the population for the study meant that focus groups or interviews with a smaller sample of students would not have been sufficiently representative of the whole group (McMullan, 2006:336). Therefore, a quantitative descriptive approach was adopted as it allowed the researcher to determine and describe the student's possible contribution of the developed CPAP.

3.5 POPULATION AND SAMPLING

Burns and Grove (2011:544) identify a study population as all the individuals who meet the sample criteria that can be included in a study and are referred to as a target population.

3.5.1 Phase 1: Exploration of the literature and development of a CPAP

The population for phase one consisted of all relevant studies published on portfolio development and learning. The search strategy involved the use of databases including EBSCOHost, Science Direct and Pubmed. Relevant journals were accessed through the online library services at the University of the Western Cape. Search terms used included: clinical competence, portfolio development, primary clinical care and content validity. The review retrieved a total of 55 relevant studies in the database between 2003 and 2013 on the subject. The studies were assessed for the relevance to the topic based on the information from the abstract (McCready, 2007:144). The assessment of studies was objectively done by using specific inclusion and exclusion criteria (table 3.1). Fifteen articles were finally chosen that represented specific indicators of portfolio-based learning in primary clinical care. The review also included grey material such as policy documents, providing the framework for PHC education in South Africa, curriculum documents from university websites and chapters from books relating to the topic.

Table 3.1: Inclusion and exclusion criteria for the literature review

	Inclusion criteria	Exclusion criteria
Criteria for articles		
Setting	Primary clinical care	Generic or unclear settings
Population	Nurse education	Other professions
Publication of articles	Articles from 2003 to 2013	Articles published prior 2003
Main focus of study	Portfolios as a tool of assessment	Assessment method unclear
Type of study	Literature reviews & methodologies	Opinion based studies
Criteria for grey material		
Postgraduate PHC portfolio frameworks	Primary clinical care	Undergraduate or general nursing portfolio frameworks
South African Health Care Policy documents	All related PHC documents up to 2011 on nurse education	Policy documents not related to primary health care
Chapters from books	Primary health care	Medical – surgical nursing

3.5.2 Phase 2: Validation of the CPAP by expert participants

The objective of phase two was to validate the CPAP through consulting the opinions of experts in the specific field. The target population thus consisted of experts in the fields of primary health care and higher education. The accessible population for the purpose of the study included professionals in the Cape Metropole Area. In the Cape Metropole area there are four higher education institutions (HEIs). The District Health Services are divided into eight sub-districts which include 43 PHC facilities. According to Polit and Beck (2006:491), a valid sample for the panel of experts should be between three and ten. Mc Gartland Rubio, Berg-Weger, Tebb, Lee and Rauch (2003:95-96) see a panel of experts as being able to provide valuable information and suggestions for improving the tool. A purposive sample of 12 participants was selected form the HEIs and the PHC facilities based on the identified inclusion and exclusion criteria.

Inclusion criteria for the primary clinical practitioner's expert participants:

- a minimum of four years of experience in Clinical Nursing Science, Health Assessment, Treatment and Care;
- registration with the South African Nursing Council (SANC) as a primary clinical care practitioner;

- practical experience and assistance with mentoring student primary clinical practitioners; and
- currently practising in primary health care facilities.

Inclusion criteria for the nursing education experts:

- a qualification in Nursing Education;
- registration with the SANC as a nurse educator;
- involvement in preparing educational tools; and
- a minimum of four years of teaching experience in primary clinical care.

A sample frame is defined as a list of every member of the population whereby the sampling criteria are used to define membership in the population (Burns & Grove, 2011:548). Once ethical approval had been obtained, the process for recruitment of the experts started. The researcher obtained the lists for the primary clinical care practitioners and the nursing educators involved in teaching with the required qualifications from four PHC facilities in three of the sub-structures in the district of Metropolitan Cape Town and three Higher Education Institutions (HEIs) in the Western Cape respectively. The HEIs contacted were the only Education Institutions offering the qualification. Participants were recruited through information sessions that were held at the primary health care facilities and by personally contacting possible participants from the HEIs.

Education expert participants (n=6) from three of these HEIs and primary clinical care practitioners (n=6) from four PHC facilities in three of the sub-districts of the District Health Services agreed to participate in the study. The PHC facilities were conveniently selected for participation in the study since they were in close proximity. The final sample consisted of 11 experts who completed the questionnaire after they reviewed the CPAP.

3.5.3 Phase 3: Assessment of the developed CPAP's possible contribution to learning by student primary clinical practitioners

The population for phase three included students undergoing a post-graduate diploma course in Clinical Nursing Science, Health Assessment, Treatment and Care. Three HEIs provided the course in the Cape Metropole area. Only one of the three HEIs delivered the diploma course on a National Qualifications Framework (NQF) level 8, which is aligned with the framework for specialist nursing education. This HEI was therefore purposefully chosen to conduct phase three of the study. The accessible population was therefore all the students undergoing the

post-graduate diploma course in Clinical Nursing Science, Health Assessment, Treatment and Care in the selected institution (N=105).

The inclusion criterion applied for the target population was all students undertaking the postgraduate diploma course at the selected institution who gave informed consent to participate in the study.

A class list with the names and telephone numbers of the student primary clinical practitioners was obtained by the researcher. Students were approached at the beginning of the practical class sessions on three consecutive mornings and asked if they were interested in participating in the study. A total of 90 students attended the sessions, and from these 60 students agreed to participate. The final sample consisted of 45 participants who completed the questionnaire after they reviewed the CPAP. De Vos et al. (2005:196) suggest that, from a population of 100, the number of respondents in a sample should be 45. The response rate achieved was 75%. The statistician confirmed that the sample size was sufficient for a descriptive study.

3.6 DATA COLLECTION INSTRUMENT

3.6.1 Phase 1: Exploration of the literature and development of a CPAP

Data was collected from a literature review between the years 2003 and 2013 without the use of a specific instrument. The inclusion and exclusion criteria in table 3.1 were applied as discussed in section 3.5.1.

3.6.2 Phase 2: Validation of the CPAP by expert participants

Data collection for the expert participants was done by means of a structured questionnaire (Appendix F). Burns and Grove (2011:52) define a questionnaire as a printed, self-report form, designed to gather information from the written or verbal responses of the subjects in the study. They suggest that descriptive studies often make use of questionnaires to collect a wide spectrum of information from participants regarding beliefs, attitudes or knowledge. Thus, the researcher used a self-completion questionnaire for data collection consisting of 33 structured closed-ended questions and one open-ended question, sub-divided into four sections.

- Section A consisted of questions asking for the biographical data of the participants, including highest education level, clinical field of interest, and years of experience in a specific field, and the type of organization the respondents were working in at the time. Each question included possible answers and the respondents indicated their answers with a mark in the appropriate blocks (Appendix F). Although the researcher selected

participants based on these inclusion criteria, the questions were included in order to ensure accurate reporting of the biographical data of the participants.

- Section B consisted of questions related to the contents of the CPAP. A four-point Likert scale was applied to identify the level of agreement of the participants with the content of the CPAP: (1) indicated strongly disagree; (2) indicated disagree; (3) indicated agree, (4) indicated strongly agree. All the questions that were answered positively and given a score of 3 or 4 would indicate positive certainty (Polit & Beck, 2006:491).
- In section C participants were asked to identify the technical format of the CPAP. A four-point Likert scale was also applied in this section to assess the technical format of the CPAP.
- Section D included one open-ended question. The open-ended question offered the participants the opportunity to remove or reword items and to make additional comments (McIntosh et al., 2010:208).

In line with the objectives of the current study, the questionnaire was adapted from a study by Butler (2005:252-256) and based on literature reviewed from studies with similar objectives. The four-point Likert scale was chosen for the closed-ended questions to enable the expert participants to indicate their perceptions of the phenomenon and to determine their level of agreement (Sharp, 2010: 3).

3.6.3 Phase 3: Assessment of the developed CPAP's possible contribution to learning by student primary clinical practitioners

Data collection for the student primary clinical participants was done by means of a questionnaire (Appendix G). A self-completion structured questionnaire for data collection was used. To accommodate the objectives of the current study, the questionnaire was based on literature reviewed from a study by Elango, Jutti and Lee (2005: 513), as well as literature reviewed from a study by McMullan (2006:343). A four-point Likert scale was used to determine the strength of the various opinions of the students about the CPAP's possible contribution to learning. Thus, the researcher used a self-completion questionnaire for data collection consisting of 17 structured closed-ended questions, sub-divided into two sections.

- Section A consisted of the biographical data of the participants, including their clinical field of interest, years of experience in primary clinical care and the type of organization where they were working. Each question included possible answers and the respondents indicated their answers with a mark in the appropriate blocks (Appendix G).

- Section B consisted of questions related to the student primary care participant's assessment of the CPAP's possible contribution to learning.

3.7 PRETESTING OF THE INSTRUMENTS

The questionnaires used in phase two and three of the study were pretested to determine their validity and reliability. Burns and Grove (2011: 49) suggest that pretesting of instruments be conducted as it is useful to determine if the correct data collection procedures are followed and if any errors occurred in the instrument. De Vos et al. (2005: 210) advise that comments by the participants in pretesting of instruments must be seriously considered and addressed in order to increase the accuracy of the findings, the success and the effectiveness of the study.

The researcher selected three expert participants who were not participating in the main study, from the same population to validate the questionnaire used in phase two. The participants were contacted independently to review the questionnaire. As a result of the pretesting procedure, a minor adjustment was made to the expert participants' questionnaire, regarding the years of experience of the experts. The adjustment was clarified with the statistician who confirmed the suggestion.

The same procedures were followed with three student primary clinical practitioners who were contacted independently to review the student questionnaire used in phase three of the study. They responded well to the questionnaire, making no adjustments necessary.

3.8 RELIABILITY AND VALIDITY

Burns and Grove (2005:732) describe how evidence for content related validity can be gathered from content experts, literature and individuals who are representative of the relevant populations. The following methods were applied to determine the validity and reliability of the questionnaires (Appendix F) and the CPAP (Appendix H) in the study:

3.8.1 Content validity of the CPAP

Content and face validity of the CPAP was ensured through the following:

- The researcher completed an in-depth literature review on portfolio-based learning, by adhering to the inclusion criteria in table 3.1 to select the relevant research.
- A framework for the contents of the CPAP was developed from the literature, as well as from the guidance and advice of the supervisor of the study.
- This process was followed by an assessment of the CPAP in phase two of the study by a panel of eleven independent reviewers. They indicated whether they considered the

items in the CPAP as being representative of all the elements of portfolio-based learning by completing a structured questionnaire with a four-point scale. An open-ended question gave the reviewers the opportunity to provide their own comments.

3.8.2 Validity of the questionnaires

Content and face validity of the questionnaires were ensured through the following:

- The questionnaires were based on the contents of the CPAP and the objectives of the study.
- The questionnaires were adapted from an instrument for measurement in similar studies. The questionnaire that was given to the experts was adapted from a study by Butler (2005:252-256). The questionnaire that was given to the students was adapted from a study by Elango, Jutti and Lee (2005: 513).
- Consultations were done with experts in the field such as the study supervisor and three independent reviewers.
- A statistician reviewed the questionnaire to ensure the suitability of the questionnaire for data analysis.
- A pretest was performed as indicated in 3.7.

3.8.3 Reliability

Reliability refers to the degree of consistency the instrument will measure the phenomenon of interest (Burns & Grove, 2005:374). Reliability was ensured through the following:

- The questionnaires did not lend itself to doing a Cronbach's alpha test (measuring internal consistency) since there was no need to measure the extent to which the questions in each subcategory measured the same construct. The consistency of participants' responses was calculated separately for each question and is reported on in chapter four.
- Reliability was improved by pilot testing the instruments and by ensuring that the participants understood the questionnaire. The researcher's contact details were made available should they have had any questions.

3.9 DATA COLLECTION PROCESS

Data collection is a process of systematic gathering of information relevant to the research objectives or purpose of a study (Burns & Grove, 2011:69).

3.9.1 Phase 1: Exploration of the literature and development of a CPAP

The researcher adhered to the data collection process suggested by McCready (2007:144). Relevant literature studies about nursing portfolios were retrieved. An in-depth discussion of this process was described in chapter two.

3.9.2 Phase 2: Validation of the CPAP by expert participants

In phase two data was gathered from the expert participants after ethical clearance was obtained for the research. The experts who voluntarily agreed to participate were provided with a hard copy of the CPAP and a questionnaire by the researcher, after the nature and purpose of the research were explained to them. Participants were informed that they could contact the researcher if any of the stages of data collection were not clear to them. Experts were given a period of two months to review the CPAP and complete the questionnaires. The questionnaires were personally collected by the researcher. Following several reminders from the researcher, 11 of the 12 participants completed the questionnaires.

3.9.3 Phase 3: Assessment of the developed CPAP's possible contribution to learning by student primary clinical practitioners

The data collection process for the student primary clinical care practitioners was done over a period of three months after ethical clearance was obtained for participation by the students. The researcher was given permission by the class lecturer before the practical class sessions commenced to approach the students. Following the information sessions where the researcher explained the nature and purpose of the study, students that were willing to participate were each provided with a bound copy of the CPAP, a student questionnaire and the participant permission form. The researcher assured the participants that they could contact her if any of the questions in the questionnaire or the phases of the research were not clear to them. They were given a period of three months to review the CPAP and complete the questionnaire.

Student primary clinical practitioners were reminded by the researcher via an SMS (short messaging service) of the proposed times for collecting the questionnaires. Completed questionnaires were obtained after several visits to the participants. The final questionnaires were collected at the end of May 2012 during a class session. From the 60 participants who agreed to participate, 45 completed questionnaires were received back. The response rate was therefore 75%.

3.10 DATA ANALYSIS

In quantitative studies a data analysis is done in order to reduce, organize, give meaning to the data, and to address the research aim and its specific objectives (Burns & Grove, 2011:545).

3.10.1 Phase 1: Exploration of the literature and development of a CPAP

This process involved reading the relevant literature. The literature on portfolio learning in primary clinical care was reviewed and key topics identified. Subsequently, these key topics were organized, analysed and compared to get a general idea of the topic under investigation. These key topics guided the researcher to establish a framework on which the content of the CPAP was based. Finally, the literature review informed the specific content, layout and guidelines for using the CPAP.

3.10.2 Phase 2: Validation of the CPAP by expert participants

The data obtained from the experts via the questionnaire were captured on an Excel spreadsheet by an independent data capturer. It was then re-checked by the researcher to ensure accurate capturing of the data. The data analysis was done by a statistician by applying STATISTICA version 11 computerized program. Descriptive statistics was used to describe the data.

When measuring content validity, it is necessary to use a quantitative measure, the content validity index for items (I-CVI). For each item, the I-CVI was calculated as the number of expert participants giving a rating of either 3 or 4 (thus dichotomizing the ordinal scale) divided by the total number of experts (Polit & Beck, 2006:491). A four-point Likert scale was used to determine the level of agreement. Items where participants strongly disagreed were scored with a 1, items where participants disagreed were scored with a 2, items where participants agreed were scored with a 3 and items where participants strongly agreed were scored with a 4. According to Polit and Beck (2006:491), when there are six or more experts, the I-CVI should not be lower than 0.78 for an item to be judged acceptable. A I-CVI of 1.00 indicates 100 percent agreement between the experts.

Results from the expert participants identified an I-CVI between 0.91 and 1.00 for the items in the questionnaire.

The qualitative feedback provided by the participants in the open-ended questions was coded and themed. All the suggestions made by the participants were incorporated in the final CPAP.

The analysed data will be presented and discussed in chapter four.

3.10.3 Phase 3: Assessment of the developed CPAP's possible contribution to learning by student primary clinical practitioners

The data analysis of the student's responses, were measured quantitatively using descriptive statistics. When the questionnaires and consent forms had been collected, they were placed in separate files for data capturing. The questionnaires were numbered and coded to facilitate auditing and capturing of the data on an Excel spread-sheet. The same data analysis program used in the analysis of the data obtained from the expert participants were used to calculate and analyse the assessment of the primary clinical practitioners.

3.11 SUMMARY

In this chapter the researcher described in detail the research design and methodology used in this study, including the theory related to, and the reasons for the quantitative research design used for the study. The processes involved in choosing the settings and the samples for both participant groups were described, as well as the data collection instrument and the methods of data analysis. The presentation and interpretation of the findings from the data and the data analyses will follow in chapter four.

3.12 CONCLUSION

A quantitative exploratory, descriptive research design was applied to complete the three objectives of the study as indicated in 3.3. The developed CPAP was validated by 11 experts, who responded positively towards the items in the CPAP. Written feedback was incorporated by the researcher before the CPAP was assessed by 45 student primary clinical practitioners.

CHAPTER 4: DATA ANALYSIS, INTERPRETATION AND DISCUSSION

4.1 INTRODUCTION

In this chapter the results from the data analysis will be presented. The analysis of the process of the development, validation and evaluation of the clinical practice assessment portfolio (CPAP) is primarily quantitative in nature. The data is reported in the form of tables, followed by a discussion based on each objective.

4.2 PRESENTATION AND DISCUSSION OF THE RESULTS

The quantitative data was analysed with the assistance from a statistician, using a computerized program (STATISTICA version 11). Descriptive statistics were used to analyse the data. The presentation and discussion of the analysed results is done according to the three objectives (phases) of the study.

Phase one consisted of the development of a CPAP from an extensive literature review. The structure used to design the CPAP is described. The literature on the specialist clinical roles of primary clinical practitioners is presented according to the ICN framework of competencies ICN, (2009:5-8) as described in chapters one and two.

Phase two entailed the validation of the CPAP by expert participants. The expert participant's opinions are presented and described. The Content Validity Index for items (I-CVI's) was calculated for each of the questions to determine whether the experts considered the content and technical format of the CPAP to be valid.

In phase three the student primary clinical practitioners assessed the developed CPAP's possible contribution to learning. The quantified results of the student's responses were interpreted and discussed in the form of tables and figures.

4.3 DATA ANALYSIS

4.3.1 Phase 1: The structure used to design the CPAP is described and analysed

4.3.1.1 Context of development of the CPAP

The data gathering and analysis were done simultaneously as a process for compiling the structure and contents of the CPAP. The data collection process consisted of a comprehensive literature review, followed by a generation of the key topics to be included in the CPAP. Key

topics identified from the literature were grouped according to the three domains of the International Council of Nurses (ICN) Competencies Framework (ICN, 2009:7-8). These included: professional, ethical and legal practice; care provision and management; and professional, personal and quality development.

The researcher adapted the steps identified by Love and Cooper (2004:68) to assist students to build their portfolios. The contents of the CPAP were typed in a bound copy (Appendix H). The outline and a summary of the contents of the CPAP are given in table 4.1.

4.3.1.2 Outline and summary of the contents of the CPAP

The core structure of the CPAP is aimed at facilitating the application on the part of the users of the CPAP of the knowledge, skills and attitudes required for competent primary clinical care practice as outlined in the summary.

Table 4.1: Content and summary of the contents of the CPAP

CONTENT	DESCRIPTION	REFERENCES
Students information	A section on biographical data, including recognition of prior learning, and the teaching staff and clinical institutions responsible for the student's learning	Love and Cooper (2004:76)
List of abbreviations	A list of abbreviations are provided to ensure clarity of terms used in the CPAP	Love and Cooper (2004:76)
General instructions	General instructions on how to prepare the CPAP to ensure responsibility and accountability of the clinical/academic learning institutions and the student.	Love and Cooper (2004:76)
Context of portfolios	An introduction on the context of portfolios is included for students not familiar with portfolio development from previous courses	Norman (2008:1-3)
Introduction	An introduction on the purpose of the CPAP. The overall outcomes are given in terms of applying knowledge, skills, values and attitudes in the health assessment of a patient, with the goal of providing comprehensive, holistic care.	Norman (2008:15-22) Geyer, Naude & Sithole, (2002:14)

THE 5 STEPS OF CPAP PREPARATION: Love and Cooper (2004:68) identified the following steps as being useful in building portfolios: • Areas of skills development • Course objectives and specific primary care learning outcomes • Learning strategies to achieve learning outcomes • Performance indicators and • A collection of evidence that demonstrates if performance indicators have been met		
STEP 1 Areas of skills development	The principles of the health assessment, a critical skill for nurses to master in primary clinical care, the principles of PHC and the priority health care problems are outlined	Bickley (2009: 3-392) Evian (2003:101-273)
STEP 2 Course objectives and specific primary care learning outcomes	The course objectives and learning outcomes identified under the ICN framework of competencies provide a foundation on which the student will build their professional knowledge and competencies in primary clinical practice. **PROFESSIONAL, ETHICAL AND LEGAL PRACTICE** **Accountability, ethical & legal practice**: To function within an ethical, legal framework. **CARE PROVISION & MANAGEMENT** **Key principles of care, leadership, management** (assessment, planning, implementation, evaluation, health promotion, therapeutic communications and relationships) • Gathers data through a systematic health assessment • Derives nursing diagnoses and comprehensive primary care plan • Applies critical thinking and clinical reasoning skills • Responds to unexpected or rapidly changing situations • Recognizes culturally sensitive needs and adapts practice accordingly • Ensures delivery of integrated PHC principles of health care delivered. Promotes healthy life	ICN Framework of Competencies (2009:7) Muller (2003:52-64) National Department of Health (RSA). Standard Treatment Guidelines & Essential Medicines List (11-71). National Department of Health. National Strategic Plan on HIV, STI'S and TB 2012-2016 (2011:7-12) Mash, Blitz, Kitshoff & Naude, (2010:10-89) Jarvis (2008:1-11) Viljoen(2009:1-126)

	styles to individuals, families and communities • Collaboration with other professionals involving clients with care planning • Documents intervention accurately and in a timely manner **PROFESSIONAL, PERSONAL & QUALITY DEVELOPMENT** **Professional development** • To evaluate nursing practice and patient care • Ensure quality improvement and evidence based practice in a PHC facility	
STEP 3 Learning strategies to achieve learning outcomes	The steps of an individual learning agreement plan for the student to use as a guide and to apply the learning strategies to achieve learning outcomes are given The process of active participation of student and mentor in identifying future learning needs is outlined, with: • critical reflection templates for guidance and • recommended and prescribed readings to guide the student for the preparation of the activities	Norman (2008:15-22) Tanner (2006: 234) Jarvis (2008:1-11)
STEP 4 Performance indicators	The novice to expert model of assessment of Benner (1984) is outlined, to be used by the student and teaching staff The performance indicators include: • Clinical skills practice guidelines and • Clinical guidelines to practice in simulations with peers and mentors in preparation of competency	Wilson & Giddens (2009: 580-590)

STEP 5 A collection of evidence demonstrating performance indicators	A series of problem solving and clinical decision making activities in the form of clinical cases identified by the student are outlined. The activities include 12 criteria assessed by the mentor that students must work through and use, to complete a reflection report Criteria includes: • Collecting patient data and making a diagnosis • Formulating a comprehensive care plan, including health promotion, referral and discharge. • Peer discussions, clinical reasoning exercises and evidence based practice activities and • Evidence of learning activities • Evidence of clinical practice activities to ensure that the academic elements of the CPAP are met. • Evidence of the required clinical hours that must be worked for registration.	Viljoen (2009:1-126) Practical Approach to Lung Health and HIV/AIDS in South Africa (2011:1- 44) Wilson &Giddens (2009: 580-590) South African Qualifications Authority (SAQA) (2007: 3-4)
Evaluation instruments	A guide to complete all the evaluation instruments that will assist students to prepare for competency	Van der Merwe, (2005: 48)
Evaluation reports	• Evaluation reports of the mentor by the student. • Evaluation reports of the student by the mentor to identify weaknesses and strengths.	
Appendices	• Policy guidelines on health and safety in the primary health care setting • Appendices with information on an assessment and intervention tool for preparing a case study using the Neuman System Model 1995 • Tools on how to prepare reflective practice	George (2002:353-358) Tanner (2006: 234)
References	A list of references is provided	

4.3.1.3 Discussion of phase 1

The objective of phase one was to develop the content of a CPAP for student primary clinical practitioners from a literature review as described in 4.3.1.2. This objective was successfully achieved by the researcher. In phase two, the CPAP was validated by expert participants.

4.3.2 Phase 2: Analysis of the validation of the CPAP done by the expert participants

4.3.2.1 Section A: Biographical data

In this section an analysis of the biographical data of the expert participants is presented (Appendix F). The participants were specifically chosen to participate in the study based on their qualifications. All decimal values are rounded off to the first decimal. Percentages are not reported for phase two since the sample was smaller than 25 participants.

4.3.2.1.1 Highest education level

Expert participants were asked to indicate their highest education level. Most participants (n=5) had a postgraduate nursing degree. The other qualifications included basic nursing diploma (n=2), basic nursing degree (n=2) and a master's degree (n=2). None of the participants held a doctoral degree as indicated in table 4.2. The distribution of the education level of the expert participants indicated that all of them have some form of higher education level qualification.

Table 4.2: Distribution of highest education level

Response	Total (n)
Basic nursing diploma	2
Basic nursing degree	2
Post graduate nursing degree	5
Master's degree	2
Doctoral degree	0
Specify other	0

4.3.2.1.2 Main clinical field of interest

Most participants (n=8) indicated that their clinical field of interest was primary clinical care nursing and three participants indicated that it was nursing education, as shown in table 4.3. The main clinical field of interest of the participants confirmed their expertise in the fields of primary health care and nursing education, making them suitable participants for the purpose of the study.

Table 4.3: Main clinical field of interest

Response	Total (n) n=11
Primary clinical care nursing	8
Nursing education	3

4.3.2.1.3 Years of experience in nursing education and primary clinical care

Participants indicated their years of experience in nursing education and primary clinical care. The majority of participants had between 4 – 9 years (n=6) of experience. Five participants had between 10 - 35 years of experience. The years of experience of the expert participants in both fields, as identified in table 4.4 make them suitable participants to review the content and technical format of the CPAP.

Table 4.4: Years of experience in nursing education and primary clinical care

Response	Primary clinical care	Nursing education	Total (n) n=11
4 - 9 years	4	2	6
10 - 14 years	1	1	2
15 - 20 years	1	0	1
21 - 24 years	0	0	0
25 - 30 years	1	0	1
31 - 35 years	1	0	1

4.3.2.14 Type of organisation of employment

The data showed that the various kinds of organisations where the 11 participants were employed were as follows: PHC clinic (n=2); community health centre (n=5); and a higher education institution (n=4) as shown in table 4.5. One of the participants who were employed at a university was involved with the development of assessment tools for student clinical nurse practitioners. The participants were employed in various settings, indicating that they had the expertise to validate the CPAP.

Table 4.5: Type of organisation of employment

Response	Total (n) n=11
Primary health care clinic	2
Community health care centre	5
University	4

4.3.2.2 Section B: Analysis of the contents of the CPAP

In this section the analysis of the questions related to the contents of the CPAP are described and discussed. Participants were given an opportunity to respond to all the questions, and answers by the participants were provided through a four-point Likert scale that included responses from 'strongly disagree' to 'strongly agree' as follows: (1) = strongly disagree, (2) = disagree, (3) = agree and (4) = strongly agree. For every question the I-CVI was calculated as described in section 3.10.2.

4.3.2.2.1 Applicability of the introduction of the CPAP

Participants were asked if the introduction of the CPAP were applicable. The question was answered by all the participants. Table 4.6 shows that more than half of the participants (n=6) responded that they strongly agreed that the CPAP introduction was applicable and a further five participants agreed with the statement. The I-CVI was 1.0, indicating that the introduction of the CPAP was considered to be a valid item by the participants.

Although most of the participants (n=6) strongly agreed that the introduction of the CPAP is applicable, written comments in section D of the questionnaire by one of the participants indicated that the introduction appears to be potentially confusing: Participant 1: *Introduction is a bit confusing…."*.This response resulted in the addition of two items to the CPAP introduction (the context of portfolios and a list of abbreviations) to ensure that the student primary clinical practitioners will be effectively guided using the information in the introduction, and that the information is concise and clear to them.

Table 4.6: Applicability of the introduction of the CPAP

Response	Total (n) n=11
Strongly disagree	0
Disagree	0
Agree	5
Strongly agree	6

4.3.2.2.2 Relevancy of ICN competencies framework

Experts were asked to evaluate the relevancy of the ICN framework. All of the participants responded to this question. The majority of participants (n=8) strongly agreed and a further two participants agreed that the ICN competencies framework is relevant. One of the participants

disagreed with the statement, but did not provide a reason for the response. The I-CVI was 0.91, indicating that the ICN framework was considered to be a valid item by the participants.

The ICN competencies framework is a very important guideline in terms of quality nursing education and for sustaining professionalism in the primary health care setting as indicated in chapter two. South Africa is an active member of the ICN and the scope of practice for nurses in South Africa is based on guidelines produced by the ICN (SAQWA, 2007:8-9). The ICN identified nurses as the principal group of health workers maintaining links between various individuals, families, groups and communities working collaboratively within the health care system. The ICN Framework of Competencies (ICN Regulation series, 2009:5-8) was developed to identify competencies for registered nurses working in specialist clinical roles.

Table 4.7: Relevancy of ICN competencies framework

Response	Total (n) n=11
Strongly disagree	0
Disagree	1
Agree	2
Strongly agree	8

4.3.2.2.3 Competencies inclusive of PHC nursing practice

Participants were asked whether the competencies listed in the CPAP was inclusive of all the requirements of PHC in their area of nursing practice. Only one participant disagreed with the statement. The majority of participants either agreed (n=2) or strongly agreed (n=8) with the statement (table 4.8). The I-CVI of 0.91 indicated that the list of competencies in the CPAP was considered to be valid for PHC practice.

The primary clinical care competencies are therefore inclusive of all the requirements of PHC in nursing practice. The high expert panel validity rating further indicates that the experts agreed on the extent to which the items are important for sustainability of the CPAP. One of the participants gave her/his view of the inclusivity of the competencies in terms of the requirements: **"***It indicates comprehensive primary health care assessment and management*. *It falls within ethical and legal framework of expected protocols in the health setting"* (participant 6).

Table 4.8: Competencies inclusive of PHC nursing practice

Response	Total (n) n=11
Strongly disagree	0
Disagree	1
Agree	2
Strongly agree	8

4.3.2.2.4 Overall learning outcome of the CPAP

Participants were asked to indicate if the overall learning outcome of the CPAP was clearly understandable, realistic and demonstrable to them. All participants responded to the question. Participants either agreed (n=2) or strongly agreed (n=9) that the overall learning outcome of the CPAP was clear. The I-CVI of 1.00 indicated that there was consensus between participants. Five participants agreed and six participants strongly agreed that the learning outcome is understandable. The I-CVI of 1.00 indicated that consensus was reached. Six participants agreed and five strongly agreed, with an I-CVI score of 1.00, that the learning outcome is realistic. When asked whether the learning outcome is demonstrable, one participant disagreed, three agreed and seven strongly agreed. The I-CVI of 0.91 indicated agreement between experts that the learning outcomes was clear, understandable, realistic and demonstrable as shown in table 4.9.

Table 4.9: Overall learning outcome

Variable	n			
	Strongly disagree	Disagree	Agree	Strongly agree
Clear	0	0	2	9
Understandable	0	0	5	6
Realistic	0	0	6	5
Demonstrable	0	1	3	7
Total (n) n=11				

4.3.2.2.5 Improvement of learning experience

The response by the participants on the improvement of learning experience showed that most participants (n=7) strongly agreed and a further four participants agreed with the statement as shown in table 4.10. The I-CVI of 1.00 indicated that there was agreement between participants that the CPAP will facilitate improvement of the student's learning experiences in the clinical area.

Table 4.10: Improvement of learning experience

Response	Total (n) n=11
Strongly disagree	0
Disagree	0
Agree	4
Strongly agree	7

Clinical learning is an essential part of the nursing student's education, by providing them a 'real world' context. However, due to workplace pressures, the health care environment that the student is exposed to is not always beneficial for student learning. According to Norman, (2008:37-40) the use of portfolios that foster reflection on the relationship between practical experience and theoretical learning can help decrease the practice-theory divide.

4.3.2.2.6 Evaluation of the steps in the preparation of the CPAP

Norman (2008:70) suggests that, although the content and style of a portfolio may vary according to its intended purpose, it is imperative that it is organized effectively for learning to take place. Love and Cooper (2004:68) identify the following steps as being useful in assisting students to build their portfolios:

- Step 1: Areas of skills development;
- Step 2: Course objectives and specific primary care learning outcomes;
- Step 3: Learning strategies to achieve learning outcomes;
- Step 4: Performance indicators; and
- Step 5: A collection of evidence that demonstrates if performance indicators have been met.

Participants were asked to evaluate the steps to be followed by the student in the preparation of the CPAP. The responses to the evaluation of the relevancy of the first step in the preparation of the CPAP by the participants were as follows: disagreed (n=1), agreed (n=2) and strongly agreed (n=8), with an I-CVI of 0.91. Participants therefore agreed on the areas of skills that the student must develop in preparation of the CPAP.

Two participants agreed and nine participants strongly agreed on the development of specific learning outcomes of the CPAP (step two). Four participants agreed and seven strongly agreed on the learning strategies to achieve learning outcomes (step three). With regards to step four, one participant disagreed but most participants either agreed (n=3) or strongly agreed (n=7) on the performance indicators to establish if learning outcomes have been achieved. The evaluation of step five indicated that participants either agreed (n=4) or strongly agreed (n=7) on the process to be followed in the collection of evidence that demonstrates performance indicators have been met as shown in table 4.11.

Table 4.11: Steps in CPAP preparation

Variable	n				Total
	Strongly disagree	Disagree	Agree	Strongly agree	
Step 1: Areas of skill that the student must develop	0	1	2	8	11
Step 2: Developing of specific learning outcomes	0	0	2	9	11
Step 3: Learning strategies to achieve learning outcomes	0	0	4	7	11
Step 4: Performance indicators to establish if learning outcomes have been achieved	0	1	3	7	11
Step 5: Collection of evidence that demonstrate that the students have met the performance indicators	0	0	4	7	11

Most of the participants strongly agreed or agreed on the evaluation of the steps in the preparation of the CPAP**.** The I-CVI for steps two, three and four was 1.00 and for the remaining steps the I-CVI was 0.91, indicating consensus between the participants that the steps in the CPAP preparation were valid. It has been suggested by several researchers in the area of

CPAPs that the success of portfolio-based learning depends on whether students and mentors receive detailed and clear guidelines on the purpose, content, structure and presentation of the portfolio (McMullan et al., 2003:334).

4.3.2.2.7 Relevance of the nurse specialist competencies

The CPAP included a list of nurse specialist competencies. Expert participants were asked to evaluate the relevance of these competencies to PHC nursing practice. All the participants responded to the questions and the responses which are summarized in table 4.11. Participants either agreed (n=3) or strongly agreed (n=8) on the importance of student primary clinical practitioners being able to function within an ethical, legal framework. With regard to the importance of the competency gathering accurate subjective and objective data, participants either agreed (n=2) or strongly agreed (n=9).

Participants either agreed (n=3) or strongly agreed (n=8) on the importance of the competency formulating a diagnoses and primary care plan. Furthermore, with regard to the importance of having respect for culturally sensitive needs, participants either agreed (n=4) or strongly agreed (n=7) on the relevancy of the competency.

Most of the participants agreed (n=3) or strongly agreed (n=7) on the importance of the primary clinical practitioner being able to respond to unexpected changing situations. However, one participant disagreed. Critical thinking and clinical reasoning skills in the practice setting were considered as relevant by all the participants who either agreed (n=3) or strongly agreed (n=8) on the importance of the competency. Participants either agreed (n=4) or strongly agreed (n=7) on the importance of a clinical nurse practitioner being able to provide guidance to individuals, families and communities in collaboration with other professionals.

The establishment of care on the part of the clinical nurse practitioners in collaboration with other professionals were considered an important competency by all the participants who either agreed (n=5) agreed or strongly agreed (n=6). Furthermore, participants either agreed (n=3) or strongly agreed (n=8) on the accurate documentation of interventions as being essential. Finally, with regard to the competency regarding the evaluation of nursing care to ensure quality improvement and evidence based practice, participants either agreed (n=2) or strongly agreed (n=9) on the relevancy of the PHC competency.

The participant's responses indicated that accurate gathering of subjective and objective data and the evaluation of nursing care to ensure quality improvement and evidence based practice

were the most relevant competencies. Therefore, it can be argued from these responses that these are key competencies for the development of a CPAP. In conclusion, the relevance of the nurse specialist competencies was regarded as crucial for PHC practice by the participants as the score of the I-CVI was 1.00 for nine items and only one item scored 0.91.

Table 4.12: Relevance of nurse specialist competencies

Variable	n				Total
	Strongly disagree	Disagree	Agree	Strongly agree	
Function within an ethical, legal framework	0	0	3	8	11
Gathers subjective and objective data	0	0	2	9	11
Formulate a diagnoses and primary care plan	0	0	3	8	11
Respect culturally sensitive needs	0	0	4	7	11
Responds to unexpected changing situations	0	1	3	7	11
Applies critical thinking and clinical reasoning skills	0	0	3	8	11
Provide guidance to individuals, families and communities	0	0	4	7	11
Establish care in collaboration with other professionals	0	0	5	6	11
Documents interventions and client responses accurately	0	0	3	8	11
Evaluate nursing care and ensure quality improvement and evidence based practice	0	0	2	9	11

4.3.2.2.8 Criteria for nurse specialist competencies to function competently in PHC

Specialist nurses should have the competencies to function competently and independently in a primary health care setting. Expert participants evaluated the degree to which the content of the nurse specialist competencies in the CPAP to carry out the criteria to function competently in primary clinical practices. Responses indicated that most participants strongly agreed (n=9) and a further two participants agreed that the content of the nurse specialist competencies fulfill the requirements as shown in table 4.13. The I-CVI was 1.00, indicating consensus.

Table 4.13: Criteria for Nurse Specialist competencies to function competently in PHC

Response	Total (n) n=11
Strongly disagree	0
Disagree	0
Agree	2
Strongly agree	9

4.3.2.2.9 Facilitation of competency of the clinical skills practice guidelines

It is important that a CPAP facilitates clinical learning and supports the practice of clinical skills for learners to develop competency. Oermann, et al., (2009:352) indicate that clinical assessment is challenged by issues of inconsistency, subjectivity and clinical environments that are becoming increasingly complex. The authors report that a key challenge is the development and use of valid and reliable clinical assessment tools. Participants either agreed (n=4) or strongly agreed (n=7) that the CPAP would facilitate the demonstration of the competency of the clinical skills practice guidelines. The I-CVI score of 1.00 indicates that consensus was reached between the participants.

Table 4.14: Facilitation of competency of the clinical skills practice guidelines

Response	Total (n) n=11
Strongly disagree	0
Disagree	0
Agree	4
Strongly agree	7

4.3.2.2.10 References current and relevant

It is important that clinical assessment portfolios are based on evidence practice and that it is current and relevant. Wilcox and Brown (2002:7) suggested that evidence submitted must be recent enough to be considered a measure of the current levels of competence of the student or practitioner. All the participants either agreed (n=2) or strongly agreed (n=9) that the references are current. The I-CVI was 1.00, which indicates consensus. The references were regarded as relevant by all the participants who either agreed (n=3) or strongly agreed (n=8). The I-CVI was 1.00, indicating consensus as shown in table 4.15. In conclusion, references were regarded by all participants as both current and relevant to the competencies of clinical nurse practitioners.

Table 4.15: References current and relevant

Variable	n				Total
	Strongly disagree	Disagree	Agree	Strongly agree	
References current	0	0	2	9	11
References relevant	0	0	3	8	11

4.3.2.2.11 Appendices current and relevant

Participants were asked if they considered the appendices to be current and relevant. All the participants either agreed (n=4) or strongly agreed (n=7) that the appendices are current. The I-CVI of 1.00, indicates consensus. The appendices were regarded as relevant by all the participants who either agreed (n=1) or strongly agreed (n=9). One participant disagreed on the relevancy of the appendices, indicating an I-CVI of 0.91 as shown in table 4.16.

Table 4.16: Appendices current and relevant

Variable	n				Total
	Strongly disagree	Disagree	Agree	Strongly agree	
Appendices current	0	0	4	7	11
Appendices relevant	0	1	1	9	11

4.3.2.3 Section C: Technical format of the CPAP

In this section the participants' opinions as required with regard to the technical format of the CPAP are discussed. The collection of evidence in the portfolio should be presented and maintained in an orderly and concise manner as too much information can create problems and confusion (Byrne et al., 2007:26-27). Love and Cooper (2004:76) specify the expected outcome of the presentation of the portfolio: it should be a unified portfolio of work that contains all the necessary elements of document structure, such as a table of contents and tables of evidence.

4.3.2.3.1 Assessment of the technical format of the CPAP

Experts were asked to evaluate the clarity, logical sequence and organisation of the technical format of the CPAP, as well as the quality of its overall preparation. All the participants either agreed (n=3) or strongly agreed (n=7). One participant disagreed that the CPAP format is clear, with an I-CVI of 0.91. The format of the CPAP were regarded as logical by all participants who either agreed (n=4) or strongly agreed (n=7). The I-CVI was 1.00, indicating consensus. Furthermore, participants either agreed (n=5) or strongly agreed (n=5) that the CPAP format is organized. One participant disagreed that the CPAP format is organized. The overall presentation and technical format of the CPAP was considered applicable by all the participants who either agreed (n=5) or strongly agreed (n=6), as shown in table 4. 17. Suggestions by one of the participants to change the structure of the introduction, as it was potentially confusing were incorporated in the CPAP. Thus, one could conclude that the technical format of the CPAP was regarded as valid for the purposes for which it is designed by the respondents.

Table 4.17: CPAP technical format

Variable	n				Total
	Strongly disagree	Disagree	Agree	Strongly agree	
Technical format clear	0	1	3	7	11
Technical format logical	0	0	4	7	11
Technical format organised	0	1	5	5	11
Overall of technical format	0	0	5	6	11

4.3.2.4 Section D: Written comments from expert participants

The participants were given the opportunity to provide additional comments and recommendations with regard to the content or layout of the CPAP. Data emerging from the open-ended questions were coded and analysed for recurrent themes. The expert participants' suggestions were subsequently incorporated in the CPAP. The following themes emerged:

4.3.2.4.1 Structure of the CPAP

There was agreement among three of the expert participants that the structure of the CPAP is suitable for the learning experience of student primary clinical practitioners. The participant's responses to the open-ended question were positive:

"Well designed, also good structure and clearly understandable" (participant 2).

"This CPAP is a very well informative design for primary health care nurses. The design is well structured and covers every aspect of learning for the student to develop" (participant 7).

The following critical comments were made by the participants together with certain recommendations on the structure and content of the CPAP:

"Areas of skills and learning outcomes, too much information for a study guide. It may confuse students or cause reluctance to go through it" (participant 11).

"Add the role of the SAQA framework in South Africa " (participant 7).

"Divide the course preparation into prescribed and recommended readings" (participant 7).

"Regarding Benner's scale, assess if you need to add a column for students that omit an action" (participant 8).

4.3.2.4.2 Primary clinical care competencies

The participants were generally of the opinion that the primary clinical care competencies included in the CPAP are valid and useful for the training of student primary clinical practitioners:

"The CPAP is a very good tool, covering primary health care nursing sector competently. It indicates comprehensive PHC assessment and management. It falls within an ethical, legal framework of expected protocols in the health care system" (participant 6).

"The performance indicators and collection of evidence gives good coverage of student's needs as well as primary care procedures" (participant 11).

"Interesting comments where students and mentor have to make comments on things that either needs improvement or well done which is directly aimed at the student and mentor to complete" (participant 1).

"Case studies are all done in a manner where you have to use skills and knowledge of theoretical work in prescribed books to give a better understanding of a condition" (participant 1).

Recommendations made:

"Peer evaluations: are students really able to assess the advanced skills that they themselves are not familiar with. Remove column and rather allow mentor to assess" (participant 8).

"Add space for feedback and how students will be re-evaluated if they are not found competent" (participant 10).

4.3.2.4.3 Incorporation of guidelines for clinical practice

PALSA Plus (Practical Approach to Lung Health) is a clinical guideline used in the primary care consultation by primary health care providers in the Western Cape and standardises the clinical approach to, and management of common health problems, including HIV and TB. The expert participants showed an awareness of the importance of more emphasis being placed by clinical nurse practitioners on the incorporation of PALSA Plus and other clinical guidelines when working with the CPAP. They also emphasised the importance of focusing on national and provincial priority areas or being in line with National protocols, e.g. Advise, Consent, Test & Support (ACTS) and the integration of care.

In terms of incorporating Pulsa Plus and other guidelines in the CPAP, the participants suggested:

- "To incorporate Pulsa Plus guidelines" (participant 4)
- "To integrate HIV/TB as part of PHC" (participant 4)
- "To include cervical screening in all female patients as part of care" (participant 4).

"I advise that the Advise, Consent, Test & Support (ACTS) method be integrated with STI's" (participant 5).

"I recommend that pap smears be incorporated into the course under reproductive health" (participant 5).

"Because of my experience in dermatology, I find many problems with skin conditions in all ages" (participant 5).

"Because of the incidence of TB it should get priority in the course or more emphasis as a communicable disease" (participant 5).

4.3.2.5 Discussion of phase 2

The objective of phase two was to validate the contents of a CPAP for the use of student primary clinical practitioners as described in sections 4.3.2.2, 4.3.2.3 and 4.3.2.4. The results identified an I-CVI of between 0.91 and 1.00 for the items in the questionnaire. Polit and Beck (2006:491) state that for an expert panel consisting of six or more experts, an I-CVI of above 0.78 indicates that an item is valid. It can therefore be concluded that the experts considered the content and the technical format of the CPAP to be valid.

Comments from the experts indicated that the CPAP shows evidence of competencies that demonstrates an ethical and legal framework of the required and expected protocols in the South African primary health care context. The experts also indicated that the performance indicators, the collection of evidence, as well as the primary care procedures, together provide student primary practitioners the opportunity to function competently in a primary care setting.

Suggestions and recommendations by experts such as those relating to mentor assessment of advanced skills, should be a priority rather than restricting assessment of these skills to peer assessment. In addition, the suggestions from some of the experts in terms of clarifying and making more accessible to student clinical practitioners the information in the introduction that was potentially confusing, were taken up in the revision of the CPAP as was the suggestion that the course material references should be divided into prescribed and recommended readings. All the suggestions by the experts were incorporated in the CPAP. In phase three the CPAP was evaluated by the student participants.

4.3.3 Phase 3: Assessment of the CPAP's possible contribution to learning by student primary clinical practitioners

In this section the analysis of the responses to the questionnaire of the student primary clinical practitioners, appendix G, as well as their perceptions are presented. The questionnaire is

divided into two sections. The first section explores the biographical details of the students, such as age and years of experience, and section two the participating students' assessment of CPAP's possible contribution to learning.

4.3.3.1 Section A: Biographical data

4.3.3.1.1 Organisation where employed

Participants had to indicate where they were employed at the time of the study. All the participants (n=45) responded to this question. Almost half of the participants (49%; n=22) were employed in a PHC clinic. The other participants indicated employment in a community health centre (11%; n=5), midwife obstetric unit (4%; n=2), an academic hospital (16%; n=7), a regional hospital (4%; n=2) and seven (16%) in other institutions (table 4.18). Some of the students did not work in a PHC setting, therefore the importance of the CPAP was ensured in their exposure to the PHC setting. Participants were employed in various settings, allowing for different perspectives when assessing the CPAP.

Table 4.18: Organisation where employed

Type of organisation	Total (n) n=45	%
Primary health care clinic	22	49
Community Health Centre	5	11
Midwife Obstetric Unit	2	4
Academic Hospital	7	16
Regional Hospital	2	4
Other institutions	7	16

4.3.3.1.2 Years of experience in a primary health care environment

The response rate to this question was 100% (n=45). The participants were asked to indicate the amount of years they are working in a primary health care facility. The responses of the participants were as follows: Less than one year experience (16%; n=9); 1 – 4 years (42%; n=20); 5 – 9 years (20%, n=9); 10 – 15 years (16%; n=7) and 19 – 26 (6%; n=2). None of the participants had between 16 to 18 years of experience. The range varied from no experience to 26 years. This variation in the PHC experience of the participants can be considered as an advantage since the CPAP was therefore assessed for the possible contribution to their learning.

Table 4.19: Students' years of experience

Years' experience in a primary health care environment	Total (n) n=45	%
Less than 1 year	7	16
1 to 4 years	20	42
5 to 9 years	9	20
10 to 15 years	7	16
16 to 18 years	0	0
19 to 26 years	2	6

4.3.3.2 Section B: Responses related to learning using the CPAP

In this section the analysis of the student primary clinical practitioner's assessment of the developed CPAP's possible contribution to learning is described. All answers by the participants were provided through a four-point Likert scale ranging from (1) = strongly disagree, (2) = disagree, 3 = agree and (4) = strongly agree. The Likert scale was used to determine the strength, or level of intensity of the assessment of the participants.

There were seventeen questions that were formed based on the literature regarding the use of portfolio-based learning. Rattray and Jones (2007: 237) advised that a combination of both positively and negatively worded items may reduce the tendency for participants to agree with a statement, or respond to all items in the questionnaire in the same way. The researcher therefore reported on and grouped three to four items under the following five categories as suggested by McMullan (2006:333 -340). These categories included the CPAP's possible contribution with regard to the following:

- Support and guidance
- Personal development
- Learning
- Communication and progress monitoring and
- General opinions regarding the CPAP.

4.3.3.2.1 Support and guidance

This category included questions on the level of support and guidance provided for completing the activities in the CPAP and the level of clarity of the learning strategies and learning outcomes. McCready (2007:149) views the nursing education faculty of a higher education

institution (HEI) as having a responsibility to ensure that the learning strategies and outcomes are presented in student-friendly language, relate to the professional competencies, and are demonstrable and achievable in the clinical practice situation.

The participants that responded to the question (n=44) on whether the guidance provided for completing activities in the CPAP would be adequate responded as follows: the majority of participants either agreed (50%; n=22) or strongly agreed (43%; n=19). Two participants (5%) disagreed and one participant (2%) strongly disagreed that the guidance would be adequate. One participant (2%) did not complete the question. The (n=45) participants that responded to the question if the learning strategies were clear and accessible responded as follows: the majority of participants either agreed (42%; n=19) or strongly agreed (49%; n=22). Three participants (7%) disagreed and one participant (2%) strongly disagreed that the clarity of the learning strategies would be sufficient. Furthermore, with regard to the (n=44) participants who responded to the question on the clarity of the learning outcomes, the majority of participants either agreed (45%; n=20) or strongly agreed (52%; n=23). One participant (2%) strongly disagreed that the learning outcomes would be clear. One participant did not complete the question as indicated in table 4.20.

Table 4.20: Support and guidance

Question number	Variable	n (%)				Total n (%)
		Strongly disagree	Disagree	Agree	Strongly agree	
B1	Adequate guidance provided to complete activities in the portfolio	1 (2)	2 (5)	22 (50)	19 (43)	44 (100)
B2	The learning strategies would be clear	1 (2)	3 (7)	19 (42)	22 (49)	45 (100)
B3	The learning outcomes would be clear	1 (2)	0	20 (45)	23 (52)	44 (100)

4.3.3.2.2 Personal development

The category on personal development included questions as to the extent to which the CPAP would increase the students' autonomy in the learning process, improve their competency in written communication, changed their approach to learning and assisted with recognizing strengths and weaknesses. Personal development is an important aspect of portfolio-based learning for PHC nurses.

In 2008, the ICN, in a statement on 'Nurses Leading Primary Health Care', emphasised the critical importance of competence and leadership among PHC nurses (ICN, 2008: 7-8). With the increasing demands accountability from nurses by professional bodies, evidence of professional development is now being required by these bodies (Alsop 2002:271).The (n=45) participants that responded to the question to evaluate the extent to which they thought the CPAP would increase the student's autonomy in the learning process, either agreed (56%; n=25) or strongly agreed (38%; n=17). Two participants (4%) disagreed and one participant (2%) strongly disagreed.

The (n=45) participants that responded to the question as to whether they considered that the CPAP would increase their competency in written communication responded as follows: participants either agreed (58%; n=26) or strongly agreed (38%; n=17). One participant (2%) strongly disagreed and one participant (2%) disagreed.

Forty four participants responded to the question as to whether the CPAP would change their approach to learning. The majority of participants either agreed (56%; n=25) or strongly agreed (33%; n=15). Three participants (7%) disagreed and one participant (2%) strongly disagreed. One participant did not complete the question as shown in table 4.20. Furthermore, the (n=45) participants that responded to the question as to whether the CPAP would assist them to recognise their strengths and weaknesses: participants either agreed (64%; n=29) or strongly agreed (22%; n=10). Five participants (11%) disagreed and one participant (2%) strongly disagreed that it would fulfill this role.

Table 4.21: Personal development

Question number	Variable	n (%)				Total n (%)
		Strongly disagree	Disagree	Agree	Strongly agree	
B4	Portfolio would increase autonomy in learning	1 (2)	2 (4)	25 (56)	17 (38)	45 (100)
B8	Portfolio would increase my written communication competency	1(2)	1 (2)	26 (58)	17 (38)	45 (100)
B14	Portfolio would change my approached to learning	1 (2)	3 (7)	25 (56)	15 (33)	44 (100)
B15	Portfolio would recognize strengths and weaknesses	1 (2)	5 (11)	29 (64)	10 (22)	45 (100)

4.3.3.2.3 Learning

This category included questions on whether the CPAP encourages self-reflection, links theory to practice and if it would be a useful learning tool for student primary clinical practitioners. Joyce (2005:462), in the context of the process of portfolio development, emphasizes the integration of theory and practice and making clinical practice integral to academic learning. Timmins and Dunne (2008:344) argue that portfolio learning provides students with opportunities to link theory to practice, thus developing and demonstrating a student's ability to think critically, communicate effectively and assisting the student with the implementation of appropriate nursing activities and interventions in a clinical context.

Forty five participants responded to the question to evaluate as to whether the CPAP encourages self-reflection. The participants either agreed (47%; n=21) or strongly agreed (22%; n=10). Two participants (4%) strongly disagreed, and twelve participants (27%) disagreed. Furthermore, the (n=44) participants that responded to the question as to whether the CPAP

would link theory to practice, the majority of participants either agreed (47%; n=21) or strongly agreed (49%; n=22). One participant (2%) strongly disagreed and one did not complete the question. All the participants responded to the question as to whether the CPAP would be a useful learning tool. The (n=45) participants that responded to the question, either agreed (47%; n=21) or strongly agreed (51%; n=23). One participant (2%) disagreed.

Table 4.22: Learning

Question number	Variable	n (%)				Total n (%)
		Strongly disagree	Disagree	Agree	Strongly agree	
B6	Portfolio would encourages self-reflection	1(2)	1(2)	25 (56)	18 (40)	45 (100)
B7	Portfolio would link theory to practice	1(2)	0	21 (47)	22 (49)	44 (100)
B12	Portfolio would be a useful learning tool	0	1 (2)	21 (47)	23 (51)	45 (100)

4.3.3.2.4 Communication and progress monitoring

This category included questions on whether the CPAP would be a resource for developing skills and a focus for discussion between students and mentor or lecturers. Furthermore, questions included whether the CPAP would assist in monitoring the academic progress of the student primary clinical practitioner and if the CPAP would help them to prepare for their examinations. Harris et al. (2001:282) emphasise the importance of a positive relationship between teaching staff and students. They suggest portfolios to provide for a conversation between student and mentor that can lead to a more meaningful and useful learning experience for the student. Forty four participants responded to the question as to whether the CPAP would be a resource for developing skills. The majority of participants either agreed (51%; n=23) or strongly agreed (42%; n=19). One participant (2%) strongly disagreed, and one (2%) disagreed as shown in table 4.23. Furthermore, the (n=45) participants that responded to the question to evaluate whether the CPAP would be a focus for discussion for the students, mentors or

lecturers, participants either agreed (64%; n=29) or strongly agreed (27%; n=12). One participant (2%) strongly disagreed, and three (7%) disagreed.

The participants were asked to evaluate as to whether the CPAP would assist in monitoring the academic skills of the clinical nurse practitioner. The (n=45) participants that responded to the question as to whether the CPAP would assist in monitoring academic skills, participants either agreed (56%; n=25) or strongly agreed (42%; n=19). One participant (2%) strongly disagreed. Furthermore, of the (n=44) participants that responded to the question as to whether the CPAP would help them to prepare for their examinations, the majority of participants either agreed (53%; n=24) or strongly agreed (38%; n=17). One participant (2%) strongly disagreed, and three (7%) disagreed as shown in table 4.23.

Table 4.23: Communication and progress monitoring

Question number	Variable	n (%)				Total n (%)
		Strongly disagree	Disagree	Agree	Strongly agree	
B9	The portfolio would be a resource for developing skills	1 (2)	1 (2)	23 (51)	19 (42)	44 (100)
B10	The portfolio would be a focus for discussion for student, mentor and lecturer	1 (2)	3 (7)	29 (64)	12 (27)	45 (100)
B13	The portfolio would monitor academic progress	1 (2)	0	25 (56)	19 (42)	45 (100)
B16	The portfolio would be helping students for examinations	1 (2)	3 (7)	24 (53)	17 (38)	45 (100)

4.3.3.2.5 General opinions regarding the CPAP

This category included questions on whether students anticipate that completing the CPAP would be a stressful process, whether they would enjoy completing activities in the CPAP or if they anticipate that the CPAP would take a lot of time to complete. Without comprehensive support, students and mentors can become increasingly demoralised and stressed and as a result, portfolios would not be very effective in developing and assessing the competence and

learning of the students (McMullan, 2006:342). Thus, careful planning is necessary to ensure that nurses have a positive experience and that they view portfolio learning as a worthwhile tool for developing and demonstrating competence. Forty five participants responded to the question to whether they anticipate that completing the CPAP would be a stressful process. Participants either agreed (47%; n=21) or strongly agreed (22%; n=10). Two participants (2%) strongly disagreed, and twelve (27%) disagreed.

Participants were asked, whether they would enjoy to complete activities in the CPAP. Of the (n=44) participants that responded to the question, the majority of participants either agreed (64%; n=29) or strongly agreed (9%; n=4). Nine participants (20%) disagreed and two participants (4%) strongly disagreed. Furthermore, of the (n=45) participants that responded to the question as to whether the CPAP would take a lot of time to complete, participants either agreed (60%; n=27) or strongly agreed (28%; n=13). Four participants disagreed and one participant (2%) strongly disagreed.

Table 4.24: General statements regarding the CPAP

Question number	Variable	n (%)				Total n (%)
		Strongly disagree	Disagree	Agree	Strongly agree	
B5	Completing the portfolio would be a stressful process	2(4)	12 (27)	21 (47)	10 (22)	45 (100)
B11	I would enjoy completing activities in portfolio	2 (4)	9 (20)	29 (64)	4 (9)	44 (100)
B17	Portfolio would take a lot of time to complete	1 (2)	4 (9)	27(60)	13 (29)	45 (100)

4.3.3.3 Discussion of phase 3

The objective of phase three was to describe student primary clinical practitioners' assessment of the developed CPAP's possible contribution to their learning. An analysis of the student primary clinical practitioners' responses showed that adequate guidance was provided to complete the activities in the CPAP. Participants responded that the CPAP would contribute to learning by enhancing their personal and professional development. However, despite these

generally positive findings on the CPAP, some of the participants responded that completing the CPAP would be stressful, not enjoyable and time consuming.

A South African qualitative study conducted by Gwele (2001:92-99) found that, although students experienced confusion and stress in the development of their portfolios in the initial stages of preparation, the overall outcome showed that ultimately students found the process rewarding and empowering. A qualitative study by Elango, Jutti and Lee (2005:513) on students' perceptions regarding portfolio preparation concluded that students agreed that the portfolio was useful, although the authors emphasize that motivated students and trained and motivated staff are essential for portfolio-based learning to succeed. They further suggest that students need adequate guidance in writing and preparing their portfolios in order to alleviate stress.

The student primary clinical practitioners reviewed the CPAP over a period of three months. However, they did not complete the CPAP. Their responses were therefore limited to how they anticipated the CPAP would contribute to learning.

4.4 SUMMARY

In this chapter the researcher presented and discussed the findings in terms of the three research objectives of the study. The CPAP was designed and developed from a literature review and evaluated by student primary clinical practitioners by means of a questionnaire after it had been validated by experts in primary clinical care and nursing education. The validation was also issued from the findings of a questionnaire completed by these experts. The following chapter will discuss the achievement of the aims and objectives of the study, the recommendations arising out of the findings and the limitations of the study. A summary of the research and its findings will be provided and a general conclusion to the study drawn.

4.5 CONCLUSION

The results of the study from the nursing education and primary care practitioners indicated that both groups found the contents and the technical format of the CPAP, to constitute a suitable learning tool and guide for ongoing professional development for those practitioners in the primary health care environment. The suggestions of the expert practitioners were incorporated in the CPAP before the portfolio was assessed by the student primary care practitioners.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In this chapter, the conclusions are drawn based on the findings and analysis presented in chapter four. These will be discussed according to, and informed by, the study objectives, the study aim, and the research questions. An explanation of the limitations related to the study is presented and, arising from the findings and the conclusions, with recommendations for further research to guide improved knowledge and practice of portfolio-based learning for student primary clinical practitioners.

5.2 ACHIEVEMENT OF THE AIM AND OBJECTIVES OF THE STUDY

The aim of this study was to develop a CPAP for the Clinical Nursing Science, Health Assessment Treatment and Care programme.The findings of the study in relation to each study objective are discussed as follows.

5.2.1 Objective one: To develop a CPAP for student primary clinical practitioners from a review of the literature

The researcher developed a CPAP from an extensive review of the literature dealing with portfolio-based learning (chapter two). The core structure of the CPAP was aimed at facilitating the application of the knowledge, skills, values and attitudes required by student clinical nurse practitioners for competent primary clinical practice, as outlined in chapter four, section 4.3.1.2. Key topics identified from the literature were grouped according to the three domains of the ICN Competencies Framework (ICN, 2009:7-8) as discussed in chapter two: professional, ethical and legal practice, care provision and management and professional, personal and quality development. The researcher adapted the steps identified by Love and Cooper (2004:68) to assist students to build their portfolios. These steps include: 1) areas of skills development, 2) course objectives and specific primary care learning outcomes, 3) learning strategies to achieve learning outcomes, 4) performance indicators, and 5) a collection of evidence that demonstrates whether performance indicators have been met. The CPAP was designed between November 2010 and November 2011. The development of the CPAP was successfully achieved before the CPAP was introduced to expert participants for validation.

5.2.2 Objective two: To validate the CPAP based on the opinions of expert participants in the field of primary health care and nursing education

Validation of the CPAP was achieved by consulting eleven expert participants who met the inclusion criteria for the study. The experts reviewed the CPAP by completing a structured questionnaire, (Appendix F) on their perceptions of the relevance and/or value of the items included in the CPAP. The content validity index for items (I-CVI) proposed by Lynn's (1986) seminal study was utilized as a method of quantifying the experts' degree of agreement regarding the content relevance of the CPAP (Polit & Beck, 2006:490).

The biographical data of the experts (section A of the questionnaire) indicated that they had all completed a higher education course and were all working in the field of primary health care or education. The experts were therefore all suitable participants for the purpose of validating the CPAP. Key competencies were identified (section B of the questionnaire) under the five steps of the portfolio building process: 1) areas of skills development, 2) course objectives and specific primary care learning outcomes, 3) learning strategies to achieve learning outcomes, 4) performance indicators, and 5) a collection of evidence that demonstrates whether performance indicators have been met. Participants were asked (section C of the questionnaire) to evaluate the clarity, logical sequence and organisation of the technical format of the CPAP, as well as the quality of its overall preparation. All the participants agreed that the introduction, content and the presentation of the CPAP were relevant according to these competencies as indicated by a I – CVI of 0.91 – 1.00.

Three themes emerged (section D of the questionnaire) from the open-ended questions. Suggestions and recommendations by experts were taken up in the revision of the CPAP. These included mentor assessment of advanced skills, clarifying and making information in the introduction more accessible to student clinical practitioners and the division of course material references into prescribed and recommended readings.

5.2.3 Objective three: To describe student primary clinical practitioners' assessment of the developed CPAP's possible contribution to their learning.

The responses of student primary clinical practitioners undergoing a postgraduate diploma course in Clinical Nursing Science, Health Assessment Treatment and Care were measured quantitatively by using descriptive statistics. The biographical data of the students indicated that the majority of the participants were working in a primary health care setting and had one to 15 years of experience in a PHC setting. Participants were therefore able to give valuable

information regarding portfolio-based learning, making them suitable participants for the purpose of the study. An analysis of the student primary clinical practitioner's responses showed that adequate guidance was provided to complete the activities in the CPAP, and that they considered that the CPAP would be an effective learning tool that would enhance their personal and professional development. However, despite these generally positive findings on the CPAP as a learning tool and a guide for their professional development, a large percentage of the participants found that the CPAP would be stressful and time-consuming to complete.

5.3 RECOMMENDATIONS

Grounded in the study findings, the recommendations for this study are as follows:

5.3.1 Collaborative portfolio development strategies

The researcher found portfolio development to be a time-consuming and highly demanding task. It is important that the most current evidence based nursing practice should be included in a CPAP, as well as all relevant national and local guidelines. These also include support for the integration of services in the prevention, management and care with HIV and TB patients. Development of clinical practice assessment portfolios should therefore be considered in collaboration with other professionals who can assist in determining the key benefits from this learning approach and in order to determine if more can be achieved in developing a competence framework for primary health care nursing in South Africa. Valid and reliable assessment of clinical learning remains a challenge as indicated in the literature and authors suggested the value of a combination of assessment strategies to both identify and validate nursing competence in a primary clinical context.

5.3.2 Competence framework

The use of a framework such as the ICN Competencies Framework for the Nurse Specialist was valuable with the development of the CPAP to direct the process of identifying key primary clinical competencies. The ICN framework and the important competencies identified by the experts were considered valid and relevant in the study. It will be beneficial to have a standardised framework, as prioritising competencies would help to reduce work-load in the preparation of the portfolio, since it is time-consuming. Mc Mullan (2006: 342) suggests that for portfolios to be used effectively in clinical areas that are busy, the design of the portfolio should be clear and relevant for the student and mentor.

5.3.3 Structure of the portfolio

The literature suggests that the degree of structure of the portfolio should be appropriate for the academic level and the degree of experience of the student. Outcomes should be clear and should match the stage of the student's academic and professional career. Students can spend many hours preparing the content of the portfolio, including writing reflection reports, therefore realistic expectations and timeframes should be considered when portfolios are prepared. Workload concerns should be considered and work pressures. Portfolio content should reflect the real world of the practice setting which also includes the importance of the integration of clinical guidelines in the preparation of portfolios. The researcher used the portfolio building steps advised by Love and Cooper (2004:76) to guide students with the CPAP preparation. The experts commented that the structure of the CPAP was appropriate.

5.3.4 Training of academic staff, mentors and supervisors

Primary health care academic staff, mentors as well as clinical instructors or preceptors in the health care settings should receive adequate and detailed guidelines regarding the content and structure of portfolios to assure consistency and subjectivity with the assessment of the portfolio. Miller and Tuekam, (2009:78-79) emphasise the importance of a positive relationship between teaching staff and students for quality teaching and learning to take place. Portfolios provide for a conversation between student and mentor that can lead to a more meaningful and useful learning experience for the student. In the process of facilitating the introduction and use of portfolios, the role of the mentor is to provide constructive feedback, encourage, question, and facilitate the student's development and understanding of concepts through the use of the clinical portfolio.

5.3.5 Student guidance and support for portfolio completion

Student primary clinical practitioners should receive adequate support and guidance on reflective practice, including guidelines on how to prepare a portfolio and should be encouraged to set their own learning objectives. Study sessions should be included in the first weeks of the course to assist, to guide and to give feedback to students on how to engage in reflective practice and how to complete their portfolios. Norman, (2008:13) advised that students will need specific direction, supervision and support in order to progress with the use of portfolio learning. Tanner (2006:234) believes that each clinical experience is an opportunity for clinical learning, but that the student must be supported by the clinical teachers in developing the habit and skill of reflection-on–practice.

5.4 FURTHER RESEARCH

Further research is needed to investigate the effectiveness of the portfolio approach as a summative assessment tool. A study by Mc Mullan (2006: 342) shows that any form of assessment will decrease the learning value of reflective practice, including inconsistency between the importance of developing portfolios and summative assessment.

5.5 LIMITATIONS OF THE STUDY

One of the limitations was that the study was limited to the Cape Metropole area in the Western Cape. The inclusion of experts from other provinces may have led to the development of a more comprehensive CPAP with national applicability. The students that assessed the CPAP's possible contribution to learning had limited time to review the CPAP and did not complete the CPAP. It is possible that their opinions would have been different had they completed the CPAP.

5.6 DISSEMINATION

The department of health and the higher education institutions that offer the post graduate programme will be informed of the study findings in writing and the results will be disseminated at the nursing education association (NEA) conference. An article will be published in an accredited peer reviewed journal.

5.7 SUMMARY

The objective of phase one was to develop the content of a CPAP for student primary clinical practitioners. This objective was successfully achieved by the researcher. In phase two, the CPAP was validated by expert participants. Results from the expert participants identified an I-CVI of 0.91 to 1.00. Comments from the experts indicated that the CPAP showed evidence of competencies that demonstrated an ethical and legal framework of the required and expected protocols in the South African primary health care context. Suggestions and recommendations by experts were incorporated in the CPAP, before it was assessed by student primary clinical practitioners. The student's responses showed that the CPAP would contribute to learning by enhancing their personal and professional development.

5.8 CONCLUSION

Based on the findings from the responses of both the expert and of the student primary clinical practitioners, it can be argued that the CPAP in its present revised and validated form has the potential to be a valuable and effective learning tool for student primary clinical practitioners, as

well as a useful guide for teachers. Although it has been found in other studies and this study, that students initially may find portfolio-based learning intimidating and unfamiliar and report on the stress accompanying its use, it is hoped (as other studies have found) that both teachers and students will come to see the solid and long term benefits of it as a learning and assessment tool.

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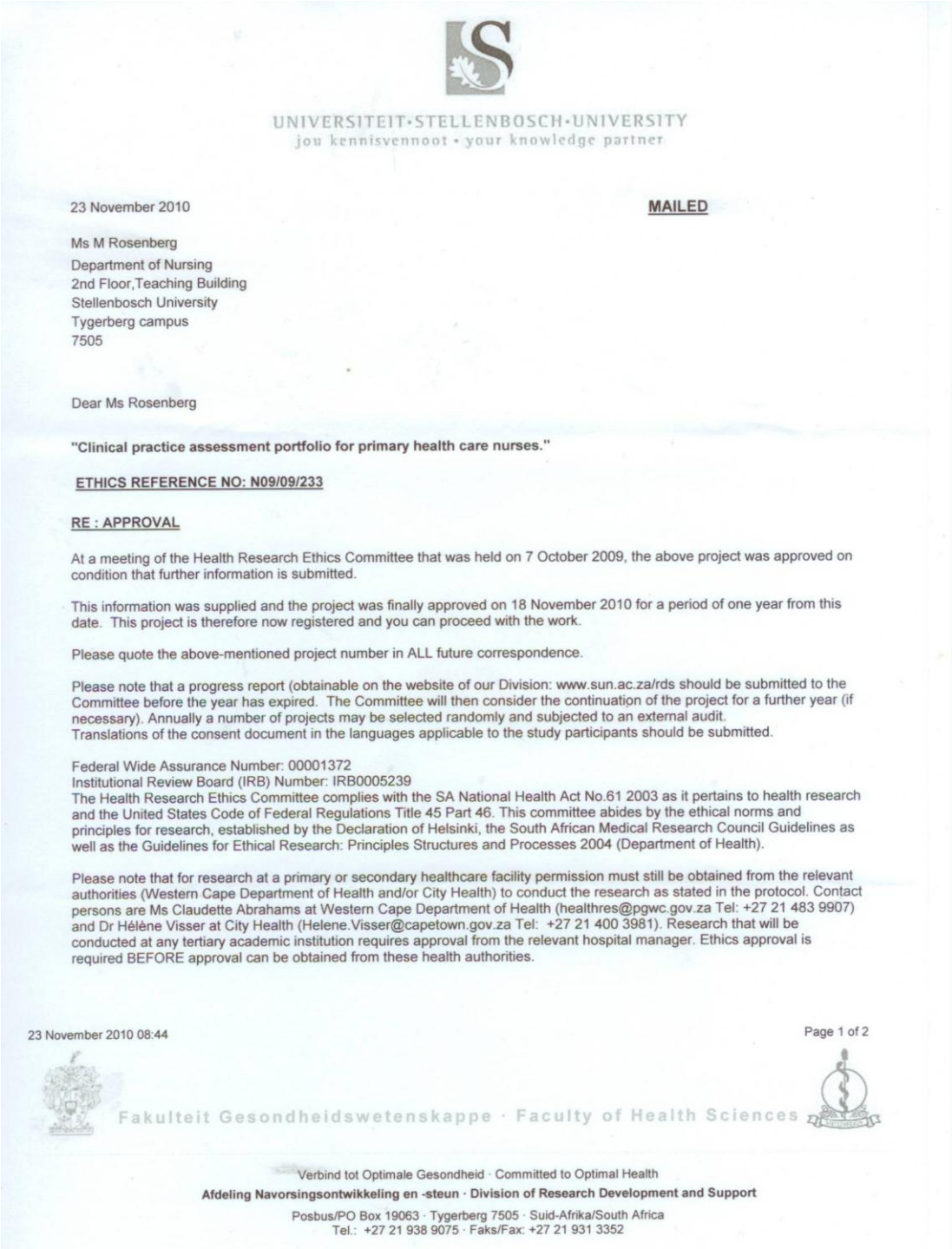
APPENDICES

Appendix A: Ethical Approval



UNIVERSITEIT·STELLENBOSCH·UNIVERSITY
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23 November 2010 **MAILED**

Ms M Rosenberg
Department of Nursing
2nd Floor,Teaching Building
Stellenbosch University
Tygerberg campus
7505

Dear Ms Rosenberg

"Clinical practice assessment portfolio for primary health care nurses."

ETHICS REFERENCE NO: N09/09/233

RE : APPROVAL

At a meeting of the Health Research Ethics Committee that was held on 7 October 2009, the above project was approved on condition that further information is submitted.

This information was supplied and the project was finally approved on 18 November 2010 for a period of one year from this date. This project is therefore now registered and you can proceed with the work.

Please quote the above-mentioned project number in ALL future correspondence.

Please note that a progress report (obtainable on the website of our Division: www.sun.ac.za/rds should be submitted to the Committee before the year has expired. The Committee will then consider the continuation of the project for a further year (if necessary). Annually a number of projects may be selected randomly and subjected to an external audit.
Translations of the consent document in the languages applicable to the study participants should be submitted.

Federal Wide Assurance Number: 00001372
Institutional Review Board (IRB) Number: IRB0005239
The Health Research Ethics Committee complies with the SA National Health Act No.61 2003 as it pertains to health research and the United States Code of Federal Regulations Title 45 Part 46. This committee abides by the ethical norms and principles for research, established by the Declaration of Helsinki, the South African Medical Research Council Guidelines as well as the Guidelines for Ethical Research: Principles Structures and Processes 2004 (Department of Health).

Please note that for research at a primary or secondary healthcare facility permission must still be obtained from the relevant authorities (Western Cape Department of Health and/or City Health) to conduct the research as stated in the protocol. Contact persons are Ms Claudette Abrahams at Western Cape Department of Health (healthres@pgwc.gov.za Tel: +27 21 483 9907) and Dr Hélène Visser at City Health (Helene.Visser@capetown.gov.za Tel: +27 21 400 3981). Research that will be conducted at any tertiary academic institution requires approval from the relevant hospital manager. Ethics approval is required BEFORE approval can be obtained from these health authorities.

23 November 2010 08:44 Page 1 of 2

Fakulteit Gesondheidswetenskappe · Faculty of Health Sciences

Verbind tot Optimale Gesondheid · Committed to Optimal Health
Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
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jou kennisvennoot • your knowledge partner

Approval Date: 18 November 2010

Expiry Date: 18 November 2011

Yours faithfully

MS CARLI SAGER
RESEARCH DEVELOPMENT AND SUPPORT
Tel: +27 21 938 9140 / E-mail: carlis@sun.ac.za
Fax: +27 21 931 3352

Fakulteit Gesondheidswetenskappe · Faculty of Health Sciences

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Afdeling Navorsingsontwikkeling en -steun · Division of Research Development and Support
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Appendix B: Permission letters from Bishop Lavis, Elsiesrivier, Mitchells Plain and Gugulethu

DEPARTMENT of HEALTH
Provincial Government of the Western Cape

COMPONENT
healthres@pgwc.gov.za
tel: +27 21 483 9976: fax: +27 21 483 9895
1st Floor, Daneys Reitz House, 8 Riebeek Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: RP 16/2011
ENQUIRIES: Dr N Peer

16 Crombie Street
Cloetesville
Stellenbosch
7600

For attention: Mariam Rosenberg
Dr Michael Pather

Re: The development of a clinical practice assessment portfolio for post graduate primary health care nurses

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research. Please contact the following people to assist you with any further enquiries.

Bishop Lavis CDC	**Sr A Carelse**	**(021) 934 6129**
Elsies River CHC	**Rona Kasker**	**(021) 931 6023**

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final report within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (healthres@pgwc.gov.za).
3. The reference number above should be quoted in all future correspondence.

We look forward to hearing from you.

Yours sincerely

MR J LEDWABA
CHIEF DIRECTOR: HEALTH PROGRAMMES
DATE: 17/05/11

CC **DR L BITALO** **DIRECTOR: NORTHERN/TYGERBERG**

The Afrikaans or Xhosa version of this document is available on request.

page 1 of 1

DEPARTMENT of HEALTH
Provincial Government of the Western Cape

COMPONENT
healthres@pgwc.gov.za
tel: +27 21 483 9976: fax: +27 21 483 9895
1st Floor, Deneys Reitz House, 8 Riebeek Street, Cape Town, 8001
www.capegateway.gov.za

REFERENCE: RP 16/2011
ENQUIRIES: Dr N Peer

16 Crombie Street
Cloetesville
Stellenbosch
7600

For attention: Mariam Rosenberg
Dr Michael Pather

Re: The development of a clinical practice assessment portfolio for post graduate primary health care nurses

Thank you for submitting your proposal to undertake the above-mentioned study. We are pleased to inform you that the department has granted you approval for your research. Please contact the following people to assist you with any further enquiries.

Mitchells Plain CDC	**Ms Zethu Xapile**	**Tel: (021) 391 5820**
Gugulethu CHC	**Ms Mabusela**	**Tel: (021) 637 1280**

Kindly ensure that the following are adhered to:

1. Arrangements can be made with managers, providing that normal activities at requested facilities are not interrupted.
2. Researchers, in accessing provincial health facilities, are expressing consent to provide the department with an electronic copy of the final report within six months of completion of research. This can be submitted to the provincial Research Co-ordinator (healthres@pgwc.gov.za).
3. The reference number above should be quoted in all future correspondence.

We look forward to hearing from you.

Yours sincerely

MR J LEDWABA
CHIEF DIRECTOR: HEALTH PROGRAMMES
DATE: 06/06/2011

CC **DR J CLAASSEN** **DIRECTOR: KLIPFONTEIN/MITCHELLS PLAIN**

The Afrikaans or Xhosa version of this document is available on request.

Appendix C: Permission letter Stellenbosch University

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01 September 2011

Ms M Rosenberg
Division of Nursing Science
Stellenbosch University
Tygerberg Campus
7505

mrosenberg@uwc.ac.za

Dear Ms Rosenberg

INSTITUTIONAL PERMISSION FOR RESEARCH
("Clinical practice assessment portfolio for primary health care nurses")

Institutional permission is hereby granted for you to continue with your research involving the post graduate Primary Health Care nursing students and two lecturers in the nursing education at Stellenbosch University as indicated in your proposal as approved by the Head of the Division for Nursing Science, Prof Marina Clarke.

The approval is subject to the candidate abiding by the requirements set out by the Health Research Ethics Committee of the Stellenbosch University dated 23 November 2010.

Kind regards

PROF JAN BOTHA
SENIOR DIRECTOR: INSTITUTIONAL RESEARCH AND PLANNING

Cc: Prof M Clarke: Head of Division for Nursing Science
Dr M Pather: Supervisor

/E:permission MRosenberg.doc

Afdeling Institusionele Navorsing en Beplanning • Institutional Research and Planning Division
Privaatsak/Private Bag X1 • Stellenbosch • 7602 • Suid-Afrika/South Africa
Tel. +27 21 808 3967 • Faks/Fax +27 21 808 4533

Appendix D: Participant information leaflet and consent form:

EXPERT PARTICIPANT

TITLE OF THE RESEARCH PROJECT:

THE DEVELOPMENT OF A CLINICAL PRACTICE ASSESSMENT PORTFOLIO FOR THE CLINICAL NURSING SCIENCE, HEALTH ASSESSMENT, TREATMENT AND CARE PROGRAMME

REFERENCE NUMBER: N09/09/233

PRINCIPAL INVESTIGATOR: Ms M Rosenberg

ADDRESS:
University of the Western Cape
Modderdam Road
Bellville
7530

CONTACT NUMBER: 021 9599483 / 0828473110

Dear Participant

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Committee for Human Research at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- To develop a clinical practice assessment portfolio (CPAP) for primary health care (PHC) nurses. A total of 12 experts will be requested to validate the CPAP. They will be recruited from PHC facilities in the Western Cape and from higher education institutions.
- The validated CPAP will then be subjected to PHC students on the campus of Stellenbosch University. The perceptions of the students regarding the use of the CPAP as a learning tool will be evaluated after implementation of the portfolio. The students that are willing to participate will be from a class of (±100) PHC nursing students.

Why have you been invited to participate?

- As an expert in PHC nursing or nursing education, you have been selected to validate the newly developed CPAP because of your experience specific to the study in question.

What will your responsibilities be?

- You are requested to validate the CPAP. Please complete the expert questionnaire. Your feedback will assist the researcher to incorporate your findings before implementation of the portfolio to students.
- You will only be granted one opportunity to complete the questionnaire.

Will you benefit from taking part in this research?

- You may gain some experience on the use of a CPAP for students.

Are there in risks involved in taking part in this research?

- There are no risks anticipated.

How will confidentiality and privacy be protected?

- All the information obtained will be used for the purposes of the study only and will be kept confidential. You will complete the consent form and not be expected to write your name on the questionnaire. The researcher will administer and collect the completed questionnaires.

If you do not agree to take part, what alternatives do you have?

- Participation in this study is completely voluntary.

What will happen in the unlikely event of some form of injury occurring as a direct result of your participation in this research study?

- The study do not consists of any questions that can be harmful.

Will you be paid to take part in this study and are there any costs involved?

- You will not be paid to take part in the study and there will be no costs involved for you, if you do take part.

Is there anything else that you should know or do?

- You should inform the researcher if you have any questions.
- You can contact Ms Rosenberg at 021 959 9483 or 0828473110 if you have any further queries or encounter any problems.
- You can contact the Committee for Human Research at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by your researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I …….. agree to take part in a research study entitled:

THE DEVELOPMENT OF A CLINICAL PRACTICE ASSESSMENT PORTFOLIO FOR THE CLINICAL NURSING SCIENCE, HEALTH ASSESSMENT, TREATMENT AND CARE PROGRAMME

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interest, or if I do not follow the study plan, as agreed to.

Signed at (*place*) ……. On (*date*) …….. 2011

…… ……

Signature of participant **Signature of witness**

Declaration by investigator

I *(name)* …… declare that:

- I explained the information in this document to the participant.
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (*If an interpreter is used then the interpreter must sign the declaration below).*

Signed at (*place*) ……. On (*date*) …….. 2011

…… ……

Signature of investigator **Signature of witness**

Appendix E: Participant information leaflet and consent form

STUDENT PARTICIPANT

TITLE OF THE RESEARCH PROJECT:

THE DEVELOPMENT OF A CLINICAL PRACTICE ASSESSMENT PORTFOLIO FOR THE CLINICAL NURSING SCIENCE, HEALTH ASSESSMENT, TREATMENT AND CARE PROGRAMME

REFERENCE NUMBER: N09/09/233

PRINCIPAL INVESTIGATOR: Ms M Rosenberg

ADDRESS:

University of the Western Cape

Modderdam Road

Bellville

7530

CONTACT NUMBER:

021 9599483 / 0828473110

Dear Participant

You are being invited to take part in a research project. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Committee for Human Research at Stellenbosch University** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki, South African Guidelines for Good Clinical Practice and the Medical Research Council (MRC) Ethical Guidelines for Research.

What is this research study all about?

- To develop a clinical practice assessment portfolio (CPAP) for primary health care (PHC) nurses. A total of 12 experts will be requested to validate the CPAP. They will be recruited from PHC facilities in the Western Cape and from higher education institutions.
- The validated CPAP will then be subjected to PHC students on the campus of Stellenbosch University. The perceptions of the students regarding the use of the CPAP as a learning tool will be evaluated after implementation of the portfolio. The students that are willing to participate will be from a class of (±100) PHC nursing students.

Why have you been invited to participate?

- As a student you have been selected to participate, because you are busy with your clinical practice in PHC.

What will your responsibilities be?

- As a student you are requested to evaluate the effectiveness of the CPAP as a learning tool. Please complete the student questionnaire. Your normal performance and competency will still be evaluated using the routine evaluation process. Participation or non-participation in this study will not affect your marks.
- You will only be granted one opportunity to complete the questionnaire.

Will you benefit from taking part in this research?

- As a student you may find that using the CPAP as a learning tool, may assist you in achieving the learning outcomes in the PHC setting. It may not benefit you directly but we hope that your evaluation of the CPAP may benefit students in the future.

Are there in risks involved in taking part in this research?

- There are no risks anticipated.

How will confidentiality and privacy be protected?

- All the information obtained will be used for the purposes of the study only and will be kept confidential. You will complete the consent form and not be expected to write your name on the questionnaire. The researcher will administer and collect the completed questionnaires.

If you do not agree to take part, what alternatives do you have?

- Participation in this study is completely voluntary.

What will happen in the unlikely event of some form of injury occurring as a direct result of your participation in this research study?

- The study do not consists of any questions that can be harmful.

Will you be paid to take part in this study and are there any costs involved?

- You will not be paid to take part in the study and there will be no costs involved for you, if you do take part.

Is there anything else that you should know or do?

- You should inform the researcher if you have any questions.
- You can contact Ms Rosenberg at 021 959 9483 or 0828473110 if you have any further queries or encounter any problems.

- You can contact the Committee for Human Research at 021-938 9207 if you have any concerns or complaints that have not been adequately addressed by your researcher.
- You will receive a copy of this information and consent form for your own records.

Declaration by participant

By signing below, I …….. agree to take part in a research study entitled:

THE DEVELOPMENT OF A CLINICAL PRACTICE ASSESSMENT PORTFOLIO FOR THE CLINICAL NURSING SCIENCE, HEALTH ASSESSMENT, TREATMENT AND CARE PROGRAMME

I declare that:

- I have read or had read to me this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask questions and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I may be asked to leave the study before it has finished, if the researcher feels it is in my best interest, or if I do not follow the study plan, as agreed to.

Signed at (*place*) …….. On (*date*) …….. 2012

…… ……

Signature of participant **Signature of witness**

Declaration by investigator

I *(name)* …… declare that:

- I explained the information in this document to the participant.
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I did/did not use an interpreter. (If an interpreter is used then the interpreter must sign the declaration below).

Signed at (*place*) …….. On (*date*) …….. 2012

…… ……

Signature of investigator **Signature of witness**

Appendix F: Data collection tool

APPENDIX F DATA COLLECTION TOOL

Please complete the questionnaire as thoroughly as possible.

Your true evaluation and recommendations are highly appreciated.

Complete each section using a cross (X) in the blocks and / or a brief response.

SECTION A BIOGRAPHICAL DATA

A1 What is your **highest** educational level?

1 Basic nursing diploma
2 Basic nursing degree
3 Post basic nursing degree
4 Masters degree
5 Doctoral degree
6 Specify other

A2 What is your main clinical field of interest?

1 Primary health care nursing
2 Nursing education

A3 How many years of experience do you have in your specific field of interest? ☐☐

A4 Which type of organization are you currently working in?

1 Primary health care clinic
2 Community health care centre
3 Midwifery obstetric unit
4 Academic hospital
5 Regional hospital
6 University
7 College
8 Other

SECTION B

Questions related to the content of the CPAP

Please complete the following questions

Using a scale from 1-4
4= strongly agree
3=agree
2=disagree
1= strongly disagree

B1	Is the introduction of the CPAP applicable?	1 2 3 4
B2	Is the ICN competencies framework relevant?	1 2 3 4
B3	Are the primary health care competencies inclusive of all the requirements of PHC in your area of nursing practice?	1 2 3 4
B4	Is the overall learning outcome	
	Clear	1 2 3 4
	Understandable	1 2 3 4
	Realistic	1 2 3 4
	Demonstratable	1 2 3 4
B5	Will the CPAP facilitate improvement of PHC nurse's learning experiences in the clinical practice of PHC?	1 2 3 4
B6	Evaluate the following aspects of the CPAP in relation to:	
	Step 1 - Areas of skill that the student must develop	1 2 3 4
	Step 2 - Developing of specific learning outcomes	1 2 3 4
	Step 3 - Learning strategies to achieve learning outcomes	1 2 3 4
	Step 4 - Performance indicators to establish if learning outcomes have been achieved	1 2 3 4
	Step 5 - Collection of evidence that demonstrate that the student have met the performance	1 2 3 4

B7	Determine the relevance of the PHC competencies				
	Function within an ethical, legal framework.	1	2	3	4
	Gathers subjective and objective data.	1	2	3	4
	Formulate a diagnosis and primary care plan.	1	2	3	4
	Respect culturally sensitive needs	1	2	3	4
	Responds to unexpected changing situations	1	2	3	4
	Applies critical thinking and clinical reasoning skills	1	2	3	4
	Provide guidance to individuals , families and communities	1	2	3	4
	Establish care in collaboration with other professionals.	1	2	3	4
	Documents interventions and client responses accurately	1	2	3	4
	Evaluate nursing care and ensure quality improvement and evidence based practice.	1	2	3	4
B8	Does the content of the nurse specialist competencies fulfill the criteria to function competently in PHC?	1	2	3	4
B9	According to your expert opinion, would the clinical skills practice guidelines facilitate the demonstration of a competent PHC nurse?	1	2	3	4
B10	Do you consider the references to be?				
	Current	1	2	3	4
	Relevant	1	2	3	4
B11	Do you consider the appendices to be?				
	Current	1	2	3	4
	Relevant	1	2	3	4

indicators

Thank you for taking time to answer this questionnaire.

SECTION C

Please assess the technical format of the portfolio

C1	Clear	1	2	3	4
	Logical	1	2	3	4
	Organized	1	2	3	4
	Overall	1	2	3	4

SECTION D

Please write down any comments and recommendations

Appendix G: Data Collection Tool

Adapted from a questionnaire by (Elango, S; Jutti, R and Lee,L 2005) STUDENT QUESTIONNAIRE

DATA COLLECTION TOOL **APPENDIX G**

Please complete the questionnaire as thoroughly as possible. Your true evaluation and recommendations are highly appreciated.

Complete each section using a cross (in the blocks and / or a brief response

Section A Biographical data

A1 Which type of organization are you currently working in?

1 Primary health care clinic
2 Community health care centre
3 Midwifery obstetric unit
4 Academic hospital
5 Regional hospital
6 Other

A2 How many years/months of experience do you have in a PHC environment?

Years ☐☐
Months ☐☐

Section B
Questions related to your learning using the CPAP

Please read the questions and choose the option which best describes your answer
Using a scale from 1-4
4= strongly agree
3= agree
2= disagree
1= strongly disagree

B1 There would be adequate guidance to complete activities in the portfolio 1 2 3 4

B2 The learning strategies would be clear to complete the portfolio 1 2 3 4

B3 The learning outcomes would be clear to complete the portfolio 1 2 3 4

B4 The portfolio would increase student autonomy for their own learning 1 2 3 4

B5 Completing the portfolio would be a stressful process 1 2 3 4

Thank you for taking time to answer this questionnaire.

B6 The portfolio would encourages self-reflection 1 2 3 4

B7 The portfolio would link theory to practice 1 2 3 4

B8 The portfolio would increase my written communication 1 2 3 4

B9 The portfolio would be a resourse for developing skills 1 2 3 4

B10 The portfolio would be a focus for discussion for the student and mentor or lecturer 1 2 3 4

B11 I would enjoy completing the activities in the portfolio 1 2 3 4

B12 The portfolio would be a useful learning tool 1 2 3 4

B13 The portfolio would be able to monitor my academic progress 1 2 3 4

B14 The portfolio would change my approach to learning 1 2 3 4

B15 The portfolio would help me to recognise my strenghts and weaknessess 1 2 3 4

B16 The portfolio would be helpful to the student for exams 1 2 3 4

B17 The portfolio would take a lot of time to complete 1 2 3 4

Appendix H: Clinical Practice Assessment Portfolio for the Clinical Nursing Science, Health Assessment, Treatment and Care programme

RECORD OF ACHIEVEMENT IN PRIMARY CARE AND CLINICAL SKILLS

HEALTH ASSESSMENT AND DIAGNOSIS

Prepared by: M. Rosenberg

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Student's information

Student Name:	
Student Number:	
SANC reference number:	
Contact number: Tel /Email:	
Home address:	
Work address:	
Primary Health Care Facility:	
Mentor/Clinical Facilitator:	
RPL Identify facilities worked in and years of experience in PHC nursing practice:	

Course:	**Diploma in clinical nursing science, health assessment, treatment and care**

List of abbreviations

ACTS	Advice, Consent, Test, Support
AIDS	Acquired Immune Deficiency Syndrome
ARV's	Antiretroviral drugs
ART	Antiretroviral therapy
CPAP	Clinical practice assessment portfolio
DOTS	Direct Observed Treatment System
ECG	Electrocardiogram
HIV	Human Immunodeficiency Virus
ICN	International Council of Nurses
IPT	Isoniazid preventive therapy
JVP	Jugular venous pressure
MDR	Multidrug-resistant tuberculosis
MDG's	Millennium Development Goals
PALSA PLUS	Practical Approach to Diseases in South Africa
PHC	Primary health care
RPL	Recognition of prior learning
RN	Registered nurse
SANC	South African Nursing Council
SAQA	South African Qualifications Authority
STI	Sexually transmitted infection
TB	Tuberculosis
WHO	World Health Organisation

The context for portfolios

Norman (2008:2-3) suggests that the actual experiences of nurse practitioners play an important part in ideas about how these practitioners learn and develop knowledge appropriately and specifically to their field. Practitioners may become aware of a deficit in their skills and knowledge when they encounter a particular experience in the field. These deficits contain the possibility of becoming a learning experience for practitioners in the process of their development of more competent practice. (Norman, 2008:2) identifies the following experiential learning strategies which may be applied in clinical nursing education programmes to make up for the deficits in experience and competencies:

- Reading to expand further knowledge and support for practice
- Observing another experienced practitioner or a mentor
- Clinical supervision by a mentor
- Asking questions in the clinical field and in the classroom
- Undertaking a simulated experience with peers
- Reflection in and on action and experience in specific contexts.

According to Norman (2008: 2-3), in this experiential process students can actively build on their own knowledge based on their ongoing experiences, with their learning taking place and grounded in the social and cultural context in which the students find themselves. The author argues that changing ideas about knowledge and experiential learning have been a key factor in the increasing use of portfolios in various clinical contexts and for different purposes.

General instructions on how to use the clinical practice assessment portfolio

- The clinical assessment practice portfolio (CPAP) is a collection of your work-based learning and contains evidence from the practice setting with your reflections, signatures to indicate your achievements, evaluations and evidence of hours worked.
- Keep it somewhere safe.
- Signatures will be checked to see if it is genuine.
- Take it with you whilst on your placement and when you attend sessions with your mentor or lecturer. Students in need of remedial sessions will be identified.
- You are allowed to add pages, with entries of your case studies, reflection reports and evidence sheets. Add your own material for e.g. research findings/articles and reflective essays/ discussions with peers, members of the multidisciplinary team, family members and the community.
- The CPAP will be available online to download copies of the clinical skills instruments to practice as many times possible.

On completion of all the activities in the portfolio you should be able to complete a patient assessment confidently and competently without supervision.

Introduction

The purpose of the Clinical Practice Assessment Portfolio (CPAP) is to facilitate your work based learning and development in Primary Health Care (PHC) nursing practice. The activities provided in the CPAP will allow you to display a collection of your achievement of learning and knowledge development that can be accomplished through self-directed learning activities, a variety of assessment strategies and reflective practice. The CPAP will also allow you to structure your own individual learning goals to meet the course objectives.

The overall outcome of this module is to equip you to apply your knowledge, skills, values and attitudes in the health assessment of a patient, towards the goal of providing comprehensive, holistic care, including the development and empowerment of individuals, families and communities through health promotion activities. The (National Strategic Plan on HIV, STI'S and TB 2012-2016) shows that South Africa has a generalised HIV epidemic and the country currently ranks the third highest in the world in terms of TB burden, with an incidence that has increased by 400% over the past 15 years.

The CPAP content is divided in Cooper's six steps of portfolio-building process [Figure 1]. The process was developed to provide the basis of outcomes-based placement assessment in tertiary courses, Love and Cooper (2004: 68). Visually, the sequence is:

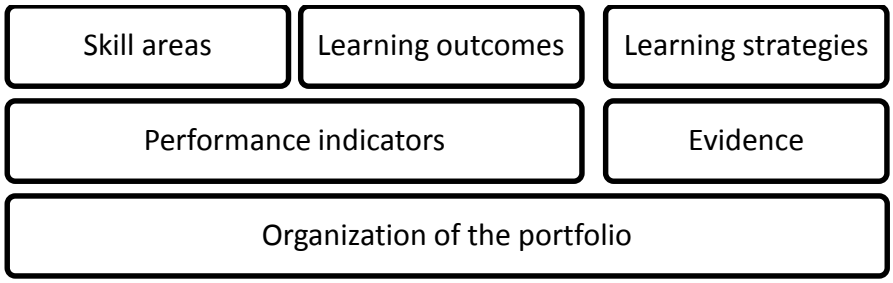

Figure 1: Adapted from Cooper's 1999, six steps of portfolio-building process.

STEP 1: Areas of skills development

Health assessment

The health assessment is a critical skill for nurses to master in PHC to determine the functional health status of the patient. Jarvis (2008: 2-7), identify that the health assessment reflects a commitment to the following characteristics:

- **Holism**, in the focus on the individual as a whole, both in wellness and illness needs.
- **Health promotion**, which elicits self-care behaviors, promoting a healthy lifestyle and self-examination teaching.
- Contracting with the person as an **active participant** in health care, by encouraging discussion of what the person is doing to promote health and by engaging the person to participate in health care.
- **Cultural considerations** that take into account the global society in which culturally diverse people seek health care.
- Individuals across the life cycle, supported by the belief that a person's state of health must be considered in light of **development stage.**

The WHO describes in their PHC World Health Report (2008: 43), the following aspects that distinguish conventional health care from people-centered primary care:

- It focuses on health needs that are comprehensive, continuous and person-centered.
- Enduring personal relationships, as people are partners in managing their health.
- Responsibility for: health of all along the lifecycle and tackling determinants of ill-health.

The components of the health assessment include the following criteria:

- Health history: a systematic collection of **subjective data.**
- Physical examination: **objective data,** using the cardinal examination techniques: inspection, palpation, percussion and auscultation.
- **Diagnosis,** decision-making + management (investigations, drug treatment, referral and follow –up).
- **Health promotion** and counselling: identifying health risks and counselling of the patient.
- Accurate and complete **recordkeeping**

According to Jarvis (2008: 2-3) it is important that a student expand on, practice, and then learn to have confidence in your health history and physical examination skills. The author continues that the student must 'learn to listen to the patient, most often he or she will tell you what is wrong (and right) and what you can do to meet his or her health care needs'. She concludes that the student must then learn to 'inspect, examine, and listen to the person's body'. The patient's data are available to the student by using just a few additional tools.

Comprehensive primary health care

The principles of comprehensive PHC are embedded in the core functions and role of the nurse in the PHC setting. Principles include: well-being, with a comprehensive response to people's expectations and needs, including risks, illnesses and disease. It also includes promotion of healthier lifestyles, to prevent disease and rehabilitation of people after an injury or illness. These principles guide health care and the levels of care as summarized in Table1.

Table 1: Principles of comprehensive primary health care

Principles	**Comprehensive care**	**Levels of care**
Equal access and equity Participation of all Involving all service sectors (state, NGO or private) Health promotion and disease prevention Affordable, acceptable, appropriate care Multi –disciplinary teams	Health promotion Disease prevention Cure Rehabilitation Palliation (relief of suffering) Protection from harm	Tertiary level ↑ ↓**referral** Secondary level ↑ ↓**referral** Primary level ↑ ↓ Family/Community

Source: *Principles of comprehensive health care* (Zweigenthal, Puoane, Reynolds, Coetzee, Duncan, Alperstein, Duncan, Atkins, Loveday, Hutchings, Geiger, Petersen, Ferguson, Hewett & Batley, 2009:8).

Priority health care problems

According to Jarvis (2008:4) a nurse is the first health professional to see the patient and have the primary responsibility for monitoring the person's health care. The following is a summary of a common approach to identifying immediate priorities.

First –level priority problems: airway, breathing, circulation problems and vital signs concerns

Second–level priority problems: mental status change, acute pain, acute urinary elimination problems, and untreated medical problems requiring immediate attention, also abnormal laboratory values, risks of infection, safety, or security**.**

Third–level priority problems: health problems that do not fit into the other categories, e.g. problems with lack of knowledge, activity, rest, family coping.

Treatment for first- and second- level priorities is usually initiated in rapid succession or simultaneously. At times, the order of priority might change, depending on the seriousness of the problem and relationship of the problems.

STEP 2: Specific Learning outcomes

International Council of Nurse's Framework of competencies

The CPAP is based on the ICN's framework of competencies for the Nurse Specialist. The framework [Table 2] below has been updated recently to keep pace with the evolving practice of the registered nurse (ICN Regulation series, 2009:5-8). The South African Qualifications Authority (SAQA), 2007:8 identified that 'the scope of practice for nurses in South Africa is based on guidelines produced by the ICN, who recommended "global" competencies for the generalist nurse'.

The competencies as described in the framework are grouped under the following 3 headings:

- Professional, ethical and legal practice
- Care provision and management
- Professional, personal and quality development.

Table 2: ICN Framework of competencies for the Nurse Specialist (revised 2009)

Professional, ethical, legal practice	accountability, ethical practice and legal practice
Nursing practice (provision & management)	• **key principles of care** assessment planning implementation evaluation health promotion therapeutic communications and relationships • **leadership and management** inter- professional health care delegation and supervision safe environment
Professional, personal & quality development	enhancement of the profession, quality improvement and continuing education

Practice standards are used to direct your education and preparation. It also supports ongoing competence developments to enable a nurse to practice to the fullest extent. Standards influence the nursing profession's ability to meet the changing health needs of the population as well as the complexity inherent in the health care delivery system (ICN Regulation series, 2009:5-8).

Table 3: ICN Framework of Competencies: course objectives including the learning outcomes

ICN Competencies Framework	Course objectives and learning outcomes
Professional, ethical, legal practice	1. **ETHICAL & LEGAL PRACTICE** To function within an ethical, legal framework in serving the public and the nursing profession.
Care provision and management Key principles of care health promotion, assessment, planning, implementation, evaluation and communication Leadership & management inter-professional health care, delegation & supervision and a safe environment.	2. **COMPETENT TECHNICAL SKILLS** Gathers accurate subjective and objective data through a systematic health assessment. Analysis and interpretation of data to derive nursing diagnoses and formulates a comprehensive primary care plan. 3. **CRITICAL THINKING** Applies critical thinking and clinical reasoning skills to explain nursing decisions and interventions. Responds appropriately and in time to unexpected or rapidly changing situations. 4. **CULTURALLY COMPETENTHEALTH CARE** Recognizes culturally sensitive needs and adapts practice accordingly. Ensuring that the principles of PHC are integrated in the delivery of health care rendered. 5. **HEALTH PROMOTION** Provide guidance to individuals, families & communities in activities to reduce illness and promote healthy life styles. 6. **EFFECTIVE COMMUNICATION** Establish priorities for care in collaboration with other professionals and involve clients with care planning. Documents interventions and client responses accurately and in a timely manner.
Professional, personal and quality development	7. **PROFESSIONAL DEVELOPMENT** To evaluate nursing practice, patient care and to ensure quality improvement and evidence-based practice in the PHC facility.

NURSE SPECIALIST COMPETENCIES

The following nurse specialist competencies adapted from the ICN framework of competencies (ICN Regulation series, 2009:9-31) must be implemented to demonstrate competency with the course objectives.

COURSE OBJECTIVE 1: Professional, ethical and legal practice competencies

Learning outcome: **Ethical and legal practice** To function within an ethical, legal framework in serving the public and the nursing profession	**Nurse specialist competencies: knowledge and skills required**. ▪ Maintains registration with the South African Nursing Council (SANC). ▪ Follows a structured programme for professional development (Clinical Nursing Science, Health Assessment, Treatment and Care, R48). ▪ Demonstrate an awareness of the code of ethics and conduct in PHC nursing. ▪ Functions according to the policies and procedures of the PHC facility. ▪ Support equality and value diversity for patients, families and communities. ▪ Delivering care with respect to cultural and spiritual beliefs. ▪ Demonstrate the importance of quality nursing practice.

COURSE OBJECTIVES 2 - 6: Care provision and management competencies

Learning outcome **Competent technical skills** Gathers accurate subjective and objective data through a systematic health assessment. Analyze and interpret data to formulate a diagnoses and a comprehensive primary care plan.	**Nurse specialist competencies: knowledge and skills required**. ▪ Identify an organized and comprehensive approach to assessment. ▪ Collect data through interview & health history that includes validation of the data. ▪ Demonstrate understanding of clustering related cues that will help you see relationships among the data. ▪ To distinguish relevant from irrelevant data and to recognize inconsistencies between subjective and objective data. ▪ Interpret data and draw valid conclusions about the health status of the patient. ▪ Integration and interpretation of data from different sources including laboratory and diagnostic test results. ▪ Distinguishing normal from abnormal when identifying signs and symptoms. ▪ Diagnosing actual and potential problems and establishing priorities when there is more than one

	diagnosis. ▪ Identify individualized expected outcomes that are realistic, measurable and includes a time frame.

Learning outcome: **Critical thinking** Applies critical thinking + clinical reasoning skills to explain nursing decisions and interventions. Responds appropriately and in time to unexpected or rapidly changing situations.	**Nurse specialist competencies: knowledge and skills required**. ▪ Evaluating the patient's condition and compare actual outcomes with expected outcomes. ▪ Demonstrate the understanding of determining specific interventions and set time frames for outcomes. ▪ Determining a comprehensive PHC plan and document plan of care. ▪ Demonstrate the importance of accurate use of medication and treatment prescribing protocols applicable to PHC. ▪ Identify reasons for the person's failure, to achieve expected outcomes stated in the plan of care and take corrective actions to modify the plan of care. ▪ Establish care in collaboration with the patient and caregivers.

Learning outcomes: **Culturally competent health care** Recognizes culturally sensitive needs and adapts practice accordingly. Ensuring that the principles of PHC are integrated in the delivery of health care rendered.	**Nurse specialist competencies: knowledge and skills required**. • Deliver patient care with respect to the patient's spiritual and cultural beliefs. • Ensuring that the principles of PHC are integrated in the patient's health care with the emphasis on: access to health care resources for patients from diverse cultures.

Learning outcome: **Health promotion** Guidance to individuals, families & communities in activities to ↓ illness and promote healthy life styles.	**Nurse specialist competencies: knowledge and skills required**. ▪ Awareness that health promotion applies to generally healthy people and concerns disease prevention and health promotion. ▪ Identification and management of known risk factors for the individual's age-group and cultural status. ▪ Knowledge regarding the methods of communication that are the most applicable to the specific community. ▪ Be skillful in expressing yourself clearly in written communication with other members of the health care

	team regarding activities to promote a healthy lifestyle. ▪ Adhere to national and local health promotion and prevention strategies: Ottawa Charter Principles. ▪ Plan, develop and implement disease prevention and health promotion and education programmes.

Learning outcome: Effective communication Establish care in collaboration with other professionals and involve clients with care planning. Documents interventions and client responses accurately and in a timely manner	**Nurse specialist competencies: knowledge and skills required**. ▪ Acknowledge the importance of scheduling and coordinating the person's total health care and collaborate with team members ▪ Identification and management of known risk factors for the individual's age-group and cultural status. ▪ Supervise implementation of the care plan by delegating appropriate responsibilities. ▪ Awareness of referring individuals who require continuing care and documentation of care provided. ▪ Contribute to risk assessment and implementing risk management interventions. ▪ Delegating activities, and accepts delegated activities in line with scope of practice. ▪ Initiating and responding to referrals. ▪ Demonstrates a personal and collaborative approach, which enhances effectiveness in providing PHC nursing.

COURSE OBJECTIVE 7: Professional, development, quality improvement and continuing education

Learning outcome: Professional development To evaluate nursing practice, patient care and ensure quality improvement and evidence-based practice in the PHC facility.	**Nurse specialist competencies: knowledge and skills required**. ▪ Demonstrate an awareness of advancement and improvement of PHC through clinical leadership and professional activities ▪ Acknowledge the importance of developing yourself and contribute to the development of others ▪ Develop knowledge through critical thinking and reflective practice. ▪ Ensure quality of care through consultation, collaboration, continuing education, certification and evaluation. ▪ Demonstrate evidence of using, contributing to and doing research.

STEP 3: Learning strategies to achieve learning outcomes

Development of learning

You must select your own learning strategies on how to complete your course objectives. To accomplish that, you must develop an individual learning agreement plan, which you must discuss with your mentor/ lecturer for each course objective. In the **learning agreement plan**, you must outline how you will implement the following steps after you have familiarised yourself with **the course objectives and the criteria for assessment by your mentor.**

Individual learning agreement plan

- Reflection on prior learning
- Resources required in order to achieve the learning outcomes
- Identifying learning strategies that will facilitate your development needs
- Discussions with your mentor/lecturer
- Set target date for achievement of activities
- Reflection on completion of each activity, identifying the learning that has occurred.

Learning strategies

The following learning strategies will encourage **active participation and independent learning.**

- Self- directed clinical activities (case based problem solving) in the practice setting and practicing of clinical skills in the skills laboratory, using simulation.
- Peer assessments and peer activities in the absence of a mentor or lecturer.
- Evaluations by the mentor in the clinical facilities.
- Reflection reports on the development of learning.
- Participation and feedback during oral clinical presentations in the facility from peers and in the classroom, thus fostering progression from novice to beginner performance.

These strategies applied, places the student at the centre of the learning process. You will become an equal partner in the learning process and remain responsible and accountable for your own learning to ensure integration of theory to practice.

STUDENT'S RESPONSIBILITIES ARE TO:

- Practice and demonstrates competence related to the learning outcomes.
- Participate fully in the self-directed clinical activities and reflection on experiences.
- Act as a professional role model in your encounters with patients, families and PHC staff.
- Actively participate in activities in the PHC facility to function independently.
- Evaluates the management of patient care within the PHC facility and recommend changes for improvement.
- Ensure the best possible outcomes for the patients without exposure to risk or harm.
- Keep in mind that patients are active and equal participants in their health care, they ultimately make their own decisions.
- Adhere to the internal policy and procedures of the PHC facility.
- Be accountable for acts and omissions during clinical actions performed.
- Verbalise your learning needs and ask for feedback with regard to your progress.
- Notify the PHC facility and mentor in the case of sick leave.

The role of the clinical supervisor is to:

- **Ensure continuous guidance and encouragement to the student.**
- **Observe the students thinking, and progress in PHC practice.**
- **Generate an environment of trust.**
- **Question and challenge the practice of the student.**

Critical reflective practice

The use of critical reflective practice will be reinforced throughout the preparation of the portfolio to facilitate identification and management of individual learning needs. These include also reflection on prior learning. The way of moving from novice to becoming an expert practitioner is through critical thinking. Reflective practice in nursing will enhance your critical thinking and decision-making skills, thus supporting the concept of evidence-based practice in the PHC setting. Tanner (2006: 234), describe the role of the nurse in reflection in action and reflection on action as follows:

Reflection –in-action refers to nurse's ability to "read" the patient –how he or she is responding to the nursing intervention – and adjust the interventions based on that assessment.

Reflection-on-action and subsequent clinical learning completes the cycle, showing what nurse's gain from their experience that contributes to their ongoing clinical judgment in future situations. Each situation is an opportunity for clinical learning, given a supportive context and nurses who have developed the habit and skill of reflection-on -practice.

To engage in reflection requires a sense of responsibility, connecting one's actions with outcomes. Reflection also requires knowledge outcomes, knowing what occurred because of nursing actions (Tanner, 2006:234).

In the appendices you will find an example of the application of Tanner's (2006) Clinical Judgement model guide for reflection. This guide will assist you with reflective practice.

Course preparation

Anatomy, physiology, pathophysiology and the pharmacological management of all disease conditions is a pre-requisite for all clinical skills. You may use any current, relevant information, including electronic, multimedia and the following readings:

Prescribed readings

- Bickley L, S. 2009. *Bates Guide to Physical Examination and History Taking.* 10th ed. Wolters Kluwer, Lippincott Williams & Wilkins: Philadelphia.
- Evian, C. 2003. *Primary HIV/AIDS Care. A practical guide for primary health care personnel in a clinical and supportive setting.* 4th edition. Paarl: Jacana Media
- GlaxoSmithKline. 2009. *Primary Clinical Care Manual*. 5th ed. Cape Town: Jacana Education.
- National Department of Health (RSA). 2008. *Standard Treatment Guidelines & Essential Medicines List.* Pretoria: National Department of Health.
- National Department of Health. 2011. National Strategic Plan on HIV, STI'S and TB 2012-2016.
- South African Anteretroviral Treatment Guidelines 2010. Department: Health. Republic of South Africa
- Western Cape Department of Health. 2010. *Practical Approach to Lung Health and HIV/AIDS in South Africa .* 2nd. Cape Town: University of Cape Town Lung Institute.

Recommended readings

- Guidelines for TB preventive therapy among HIV infected individuals in South Africa 2010. Department: Health. Republic of South Africa.
- Health systems Development Trust. 2001. *Primary Clinical Care Series*. Cape Town: Heinemann Publishers (Pty) Ltd.
- Mash, B; Blitz, J; Kitshoff, D & Naude, S. 2010. South African Clinical Nurse Practitioner's Manual. Pretoria: Van Schaik.
- South African National Guidelines on nutrition for people living with TB, HIV/AIDS and other chronic debilitating conditions. 2007. Department: Health. Republic of South Africa.
- South African Nursing Council. Regulations for the Diploma in Clinical Nursing Science, Health Assessment, Treatment and Care. Government Notice No. R. 48 as amended. Pretoria.
- Viljoen, M & Sibiya, N. 2009. *History Taking & Physical Examination.* 2nd ed. Cape Town: Pearsons Education.

Overall outcome of the programme

The student must function within the scope of practice of the **Clinical Nursing Science, Health Assessment, Treatment and Care programme,** as stipulated by SANC. These also include adherence to the internal policies & procedures of the PHC facility, the requirements of the academic institution and the SAQA requirements. **The overall outcome of the PHC module is based on the integration of the specific goals of the PHC facility as well as PHC theory into your nursing practice.**

Your clinical practice experience should facilitate personal and professional development, with reference to the following important issues:

- The norms and standards of PHC nursing.
- Duties carried out in accordance with the Code of Ethics for Nurses.
- Critical thinking & problem solving skills in the health assessment of a patient.`
- Good communication skills and teamwork in groups and with the multi-disciplinary team
- Decision making in the application of the course objectives, using the nursing process.
- The use of evidence based practice to evaluate nursing practice and research skills.

PORTFOLIO ASSESSMENT GUIDE

The portfolio will be assessed by the educational institution using the following tasks.

Formative assessment Tasks

PORTFOLIO ASSESSMENT	**Case based activities** (7 activities) **Evidence of practice** (see portfolio marking tool) **History taking & physical examination procedure on an adult patient in a PHC facility** (x 2)	**40%** **20%** **40%**
TOTAL		**100%**

STEP 4: Performance indicators

Clinical practice assessment

Competencies are required to perform safely within the scope of a nurse's practice. The ICN Regulation series, define competencies as incorporating abilities of a nurse to effectively integrate & apply knowledge, skills, attitudes to his/her nursing practice. According to Benner (1984:185) the goal of nursing education is to 'provide the nurse with maximum flexibility and scope of practice after graduation '.

Your clinical practice assessments are based on Benner's five proficiency stages of practicing nurse's. The assessments will permit the student and the nursing faculty to evaluate progress.
Benner (1984:185) recommends that the role of the mentor in clinical practice is to facilitate the transition from novice to competent practitioner.

Table 4: Benner's 1984 stages of clinical competence: nurse competency level and description of behaviors

1	**Novice or beginning stage,** described as a nurse with little experience who must, therefore make decisions based on rules to direct performance. Increased mentor role modeling and coaching is advised during this stage.
2	**Advanced beginner**, in which the nurse has some experience to give meaning to actual situations, but needs to differentiate the importance of priorities. The nurse can demonstrate a marginally acceptable performance. The mentor needs to guide and motivate the nurse to build confidence.
3	**Competent.** The nurse has developed an awareness of actions related to situations similar to prior experiences. An increased level of proficiency is demonstrated. The nurse is actively involved in learning and no longer needs supervision for routine tasks. The mentor's role is moving to facilitating the process the nurse is aware of the limits of his or her skills and knowledge and is able to refer to other members of the health care team appropriately.
4	The **proficient nurse,** who is able to perceive the experience as a whole, gaining an overview of its meaning and long term effects.
5	The **expert** nurse has a broad range of experience and responds to problems quickly and efficiently.

Clinical skills practice guidelines

The clinical skills practice guidelines serves as a method for students to practice the core PHC skills, including self and peer evaluations. The learning outcomes and the assessment criteria are also identified.

Instruction on the use of the guidelines

- The guidelines outline the intervention that must be completed and some key points that the student must focus on.
- The scale on the left hand side of the guidelines must be used to identify if the skill was done or omitted by the student.
- Reflect on the process to identify strengths /weaknesses and further learning needs.
- Practice the following core PHC skills as many times, as it is possible to ensure that you can function in the PHC facility to complete a health assessment on a patient in clinical practice.
    - **Interview and health history**
    - **Physical examination including the following:**
        - **a general examination and**
        - **examination of the different systems involved**
    - **Diagnosis and management plan** (investigations, drug treatment, referral, health promotion and follow up).
    - **Record keeping**
    - **Reflection on practice.**

The following steps must be followed to ensure competency of the core skills:

- **Review of the relevant content** by utilizing all available resources including electronic and multimedia.
- **Observation** of the skills demonstrated by the mentor in the skills laboratory.
- **Independent practicing** of skills in the skills lab using simulation models/peers.
- Complete **self and peer assessments** to monitor your progress and to identify further learning needs.
- Reflect on the experience to identify you strengths and weaknesses.
- **Guided practices** under supervision of your mentor or the clinical nurse practitioner in the practice setting until minimal assistance is required.
- Complete a health assessment on a patient in the setting as part of the **formative and summative assessment**.

HISTORY TAKING (Subjective data collection)

OUTCOME: The student demonstrates competence in interviewing and history taking.

Assessment criteria: Establish and build up a professional relationship with the patient
Identify the patient's health problem and complete all components of the data collection. Summarise, verify and record data

Intervention	Key points	Y	N
Interviewing Preparation of patient, environment and the nurse practitioner.	Introductions and identification of patient. Private, pleasant atmosphere, with good lighting. Clean and safe environment. Nurse: professional attitude and neat appearance.		
Adhere to principles for interviewing, to put the patient at ease and to win the patient's confidence.	Be aware of language barriers. Explain procedure and ask permission to continue. Listen attentively and ensure sensitivity towards the patient's feelings and fears. Be honest with the patient and keep information given confidential. Ensure interaction with the patient is positive and effective. Prevent confusion, ensure questions are clear.		
History taking **Biographical data:** Collect accurate data	Name, age address, gender, religion, marital status, occupation, children. Identify the source of information if patient unable to do so.		
Obtain chief complaint/s Discuss reason for visit and if pain is a symptom in the main complaint, obtain the pain questions.	Use patient's own words when recording the complaint/s. **Pain questions:** Site, duration, character, intensity, periodicity, radiation, and aggravating, relieving and associated factors involved.		
General health questions: fatigue, repeated infections, weight loss, pyrexia, cold shivers, chest pain, palpitations, changes in sleeping pattern, cough and headache.	To assess the severity of the problems and the systems that will be examined.		
Present illness: analyze the onset, characteristics and course of symptoms	Allow patient to give a detailed history of present illness and then ask questions if information is incomplete.		
Previous history: data on the health status from birth.	Include immunizations for e.g. measles, mumps. Also diagnostic tests, injuries and accidents.		
Family history: Identify genetic, familial and infection related diseases.	Data of the general health of the patient's relatives and children.		
Surgical history:	Record surgeries performed and if patient is receiving		

	treatment related to the surgeries.		
Medication: Prescription and non-prescription drugs.	Identify the reason why patient is taking the drugs and the duration of use.		
Allergies: to food, medications, animals and environmental factors.	Specific questions must be asked about causative factors, the reaction and the treatment.		
Nutritional history	Record data on dietary intake, appetite and food allergies		
Sexual history	Objective questions on sexual practices and the use of reproductive methods.		
Personal and social history: Physical and psychosocial home environment	Smoking, alcohol .drug use, exercise, sleeping pattern, education and leisure activities.		
Occupational health status:	Sources of income.		
Travel: International and national travel	To connect diseases occurring in certain parts of the world with the system.		
HIV test	Identify and discuss voluntary counseling and testing.		
H1N1 vaccination	Check if vaccination done and education of patient.		
Skin: colour, pigmentation, temperature, moistness, hair distribution, petechial, pruritus, dryness, moles, scars, rashes, excessive oiliness, ecchymosis and tendency to bruising	Presence and spread of lesions, bruises and abrasions. Family and previous history of skin problems. Use of medications, lotions and home remedies. Identify related systemic conditions for e.g. HIV/AIDS.		
Nails soft, brittle, abnormally shaped, cyanotic nail bed, colour change, nail biting **Hair**: alopecia, texture, oiliness and dryness	Determine a history of peripheral circulatory diseases and diabetes mellitus. Recent use of chemotherapy.		
Head and face: injury, headaches, vertigo, syncope and pain.	A history of loss of consciousness, seizures.		
Eyes: changes in visual acuity, blurred vision, diplopia, photophobia, pain, inflammation, swelling and color blindness	Family history of diabetes and hypertension. Use of contact lenses, glasses and eye medications.		
Ears: deafness, tinnitus, vertigo, discharge, pain, infection,	Family history of hearing loss or problems. Hearing difficulty and the use of hearing devices.		
Nose & sinuses: rhinitis, congestion, sneezing, obstruction, postnasal drip, loss of smell	History of allergies, nosebleeds, sinus infections and injuries to nose and face.		
Mouth & throat: bleeding or swelling of gums, dental caries, and erosions of tongue or lips. Changes in taste, sore throat, hoarseness	Last visit to dentist, dental care and problems with dentures. Length of time lesions/ ulcers present in mouth.		
Neck & lymph nodes: swelling, pain, limited movement. Enlarged lymph nodes and thyroid problems.	Previous diagnosis of thyroid problems. Neck pain or stiffness. Surgery or radiation treatments.		
Breasts: lumps, pain, tenderness, discharge from nipples,	Breast self-examination practices. Family history of breast cancer.		
Cardiovascular system: Orthopnea, chest pain, fatigue, palpitations, oedema, dyspnea	Family and previous history of cardiac conditions. Lifestyle habits that are risk factors for cardiac disease.		
Respiratory system	Family history of illness and cancer.		

cough, , shortness of breath, hemoptysis, sputum wheezing + upper airway infection	Tuberculosis. Occupational and smoking hazard.		
Gastrointestinal system: appetite, dysphagia, bowel actions, heartburn, flatulence, nausea, vomiting, constipation. Diarrhea, incontinence, abdominal pain, colic, hematemesis rectal bleeding. Laxatives use, incontinence and hemorrhoids.	Detailed and clear characteristics of pain assessment. Food intolerances. Foods ingested in the last 2 days.		
Genito-urinary system: dysuria, urgency, frequency, suprapubic pain, retention, incontinence, dribble, hematuria, genital rash and sores. Changes in colour or odour of urine and strength of stream (male)	Symptoms of STI's. Usual voiding patterns and changes associated with it. Family history of nephritis or malignancy of kidneys.		
Reproductive system Males: lesions, discharges, prostate problems, swelling of scrotum problems Females: menstrual cycle problems, pruritus, vaginal discharge/infections, contraceptives.	Detailed data on the menstrual cycle. Any menopausal problems. Male and female sexual practices. History of past and present STI's.		
Nervous system Headaches, vertigo, syncope, convulsions. Change in behavior: mood, depression, phobias, motor sensory problems, cognitive abilities, speech problems.	Disorientation to time, place or person. Alterations in vision, taste, touch, smell and hearing.		
Musculoskeletal system Extremities: temperature, color, oedema, deformity, varicose veins Muscles: pain, cramps, weakness Joints: pain, stiffness, swelling, redness	Any sport injuries. Inability to perform activities of daily living. History of muscle pain or loss of function without pain**.**		
Endocrine system: polyuria, polydipsia, polyphagia, excessive sweating, voice change, goiter, change in hair distribution	Family history of cancer of the thyroid. Lifestyle habits that are risk factors for diabetes.		
Recording of data: summarize data and allow patient to add or clarify information.	Complete and logically sequenced data.		

Feedback and reflection on progress: **Date:**

Physical Examination (Objective data)

Outcome: The student demonstrates competence in performing a physical examination.

Assessment criteria:

- Preparation of the practitioner, environment, patient and equipment.
- Observation and interpretation of the general appearance of the patient.
- Measurement and interpretation of vital observations.
- The use of the different examination techniques to examine body systems.
- Utilization of the **subjective data** (history taking) to support findings of **objective data** (physical examination).
- Analyse, record and report data collected on the physical examination.

Intervention	Key points	Y	N
General examination **Preparation for the physical examination**			
Environment: privacy &clean, comfortable, well lighted room **Equipment:** assemble and check for adequate functioning. **Patient:** ensure patient is in a comfortable position. **Nurse:** wash hands, nails cut short and clean.	Identification. Explain procedure and obtain consent. Empty bladder to ensure comfort. Observe hygiene practice.		
Observe physical, emotional appearance and interpret findings			
✓ Assess the level of consciousness and observe for signs of anxiety or distress.	Respond immediately to the problem for e.g. a breathing difficulty or pain.		
✓ Observe the skin colour.	Assess for cyanosis, pale or grey colour.		
✓ Note mood, attitude and facial expression	Listen for relevance of thoughts and appropriateness of responses.		
✓ Observe voice and speech.	Presence of nasal speech, hoarseness.		
✓ Observe head and face.	Note if face is normal and symmetrical.		
✓ Assess the nutritional status of the patient	Signs of under or overweight.		
✓ Observe body build, weight and height	Relate these to age and lifestyle.		
✓ Observe posture, movements and gait	Assess for paralysis, stiff joints or injuries.		
✓ Observe grooming, and note breath and body odour	Consider the socio-economic status, age and lifestyle of the patient.		
✓ Note ability to see and hear.	Check for the use of corrective devices.		
Baseline measurements and vital signs	**Interpret + record results accurately.**		
Measure blood pressure	Consider factors that may lead to incorrect blood pressure readings		
Assess heart rate and rhythm	Determine quality and presence of pulse.		
Assess respiratory rate and rhythm	Determine depth + effort of breathing		

Record temperature	Note hypo/hyperthermia		
Measure weight, height and assess BMI	Note unexplained weight loss < 10% body weight.		
Urinalysis	Note abnormal values in patients with: diabetes, renal disease and hypertension.		
Hemoglobin / haemoglucotest. Do procedures, if indicated,	Note unexplained anemia.		
Peak expiratory flow (if indicated)	Each visit In asthma patients.		
Assess severity of patient's condition: Is the patient in pain?	Respond to patient needs.		
Any signs of jaundice	Assess skins, sclera and hard palate.		
Signs of anemia: palpebral conjunctiva, nails + buccal mucosa	Test for capillary refill.		
Observe clubbing of the fingers	Cardiac, respiratory or hepatic diseases		
Assess for signs of cyanosis. Inspect nail beds, palpebral conjunctiva lips and palms.	Note central or peripheral cyanosis		
Any signs of oedema observed.	Over bony parts.		
Inspect and palpate the head and neck for: masses, scars and pulsations.	**Note enlargement, tenderness and mobility of lymph nodes.**		
• Occipital lymph nodes.	Note any scalp infections and rubella.		
• Pre- auricular lymph nodes.	Note indications for otitis externa and eye infections.		
• Post auricular lymph nodes.	Note otitis media and mastoiditis.		
• Parotid salivary glands	Determine the presence of mumps.		
• Tonsillar lymph nodes.	Note indications for tonsillitis and adenoiditis.		
• Submandibular lymph nodes.	Observe for acute tonsillitis.		
• Submandibular salivary glands	Note blockage of the openings of the ducts.		
• Submental lymph nodes.	Observe for tooth and mouth infections.		
• Superficial cervical lymph nodes.	Note indications for thyroid cancer and head & neck cancer.		
• Deep cervical lymph nodes.	Note indications for systemic illnesses.		
• Posterior cervical lymph nodes.	Note indications for systemic illnesses.		
• Supra and infra clavicular lymph nodes	Note indications for TB, HIV infection and lung infections.		
Inspect and palpate for enlargement of the thyroid gland	Assess consistency and tenderness. Observe for a goiter and thyroid cancer.		
Auscultate for a thyroid bruit, if indicated.	Observe for features of hyperthyroidism.		

Feedback and reflection on progress: **Date:**

Examination of the different systems of the body

Examination of the integumentary system (skin, nails and hair)

Intervention	Key points	Y	N
Inspect the skin surface for the following: rashes, diffuse purple discoloration, hyper pigmentation, lesions, texture (dry scaly skin), erythema (itchy red raised wheals), extensive blistering, abscesses, crusting and warts. Identify clearly demarcated plaques or blistering. Mucosal lesions and raw areas.	Examine the whole body, including soles of feet, in between toes, axillae, genitals etc. Note systemic lesions for e.g. pruritic papular eruptions, Karposi's sarcoma lesions and scars of healed rashes. Note if any jaundice is present. Note drug reactions if the patient is taking medication. Identify itch with no rash or itch with a localized rash. Assess for the presence of any painful swollen lymph nodes. Advise the patient on hygiene practices, keep nails short etc.		
Inspect the spread of lesions and rashes.	Observe if skin lesions are primary or secondary lesions for e.g. crusts, cysts, bullae's, papules, purpura, erythema and excoriation..		
Inspect for evidence of dilated veins.	If present features of portal hypertension and varicose veins.		
Inspect for any abnormal hair distribution.	Note alopecia and hygiene.		
Palpate the skin surface for: turgor, texture temperature, swelling and tender to touch.	Assess for oedema on hands, ankles, feet and sacrum (pitting). Note any dehydration.		
Inspect and palpate the nails for: hygiene, colour, thickness, shape and for attachment to the nail bed.	Test for capillary refill. Note clubbing, to identify serous cardiac or respiratory diseases or that can be congenital.		
Inspect the skin around the nail for swelling and tenderness.	Note fungal nail infections, pitting in psoriasis and finger web burrows in scabies.		
Inspect the hair for: texture, hair loss and changes in characteristics for e.g. dryness and brittleness.	Note any hair loss. Observe if the hair and scalp are cared for. Give health education if indicated.		
Inspect the scalp for: warts, cysts, dryness, erythema, dandruff, scabs, inflammation and parasites for e.g. nits, lice.	Note any ringworms of the scalp. Also scalp changes in psoriasis.		
Palpate the scalp for: masses and areas of tenderness.	Observe for any signs of trauma. Note skin eruptions and any lesions.		

Feedback and reflection on progress: **Date:**
Student:

Examination of the head and neck

Intervention	Key points	Y	N
Face: Inspect for size, symmetry and intactness. Skin surface for: texture, colour, tenderness, temperature and lesions.	Note any abnormal facial movements, or pain with movement. Observe for any skin pigmentation or abnormal skin colour.		
Examination of the eyes - Inspect the following **External eye structures**: position and alignment of the eyes Eyebrows and eyelashes for infections of the follicles. Eyelids for symmetry, closure, blinking and oedema.	Note if one eye appear more prominent than the other. Observe for any indication of ptosis.		
Conjunctiva and sclera for colour and clarity.	Note any inflammation.		
Cornea for transparency and observe the light reflex.	Note any abrasions and opacities. Observe muscle weakness or paralysis.		
Observe for opacities of the lens and iris for shape and colour.	Refer patients with poor vision.		
Inspect and palpate the lacrimal apparatus	Observe for any discharge from the punctum.		
Palpate eyeball to determine the ocular pressure	↑ Pressure may indicate glaucoma.		
Observe the extra ocular eye movements in six cardinal fields of gaze.	Note paralysis of ocular muscles.		
Inspect and test pupils for size, shape and equality. Test reaction to light and pupillary response to accommodation	Note function of occulomotor nerve.		
Test near and distant vision, if indicated.	Observe the use of glasses or contact lenses.		
Test peripheral vision.	If a neurological problem is suspected.		
Inspect and palpate the ears: Inspect auricle for position, size, shape symmetry, skin lesions, and nodules and for the alignment.	Note abnormal findings such as tophi, cauliflower ear or sebaceous cysts.		
Palpate the tragus and the mastoid bone for nodules, swelling, redness and tenderness.	Respond to tenderness and redness on palpation.		
Inspect external auditory canal for any discharges (blood, pus or serous fluid)	Observe for signs of otitis externa.		
Examine tympanic membrane and external auditory canal with an auroscope:	Speculum must fit comfortably into the ear. Pull pinna up and back to view the tympanic membrane.		
Inspect canal for swelling, discharges, polyps, foreign bodies, redness, tumours and lesions.	Observe for signs of otitis externa.		
Examine tympanic membrane for colour, shape, intactness and the presence of the cone of light.	Observe for signs of perforations, retractions, swelling/bulging and inflammation.		
Test the hearing	Do whisper test.		
Inspect external aspect of the nose and nasal cavities: Inspect and palpate the external aspect of the nose for swelling and tenderness. Observe for any deviations in the shape.	Observe any nostril distension.		

Inspect nose for patency and test sense of smell.	Function of olfactory nerve.		
Inspect nasal cavities for swelling, polyps and discharges.	Examine and inspect the cavities with a torch or a nasal speculum.		
Inspect the turbinate's for swelling and discharges.	Observe swelling and colour. Note presence of allergic rhinitis or bacterial sinusitis.		
Inspect frontal and maxillary sinuses for swelling. Palpate and percuss lightly over the sinuses.	Observe tenderness and swelling.		
Inspect & palpate mouth and pharynx: Inspect lips for ulcers, moistness, cracks and mouth angles for fissures and cracks. Palpate inside of lips for nodules and lesions.	Observe if the lips close symmetrically. Use gloves for palpation.		
The tongue: for colour, swelling, lesions, ulcers, movement, tremors and symmetry.	Function of hypoglossal nerve. Note if tongue moves freely.		
Floor of mouth, hard/ soft palates for colour, lesions and texture. Buccal mucous membrane for white plaques, swelling, moisture, bleeding and ulcers.	Note lesions associated with Kaposi's sarcoma or nodules on palate that may indicate a tumour.		
Inspect teeth for alignment, hygiene, missing teeth and caries.	Give health education on hygiene practices and refer the patient to a dentist if indicated.		
Inspect and palpate the gums for bleeding, retraction and ulcers.	Note any gingivitis.		
Test for mobility of the mandible.	Palpate temperomandibular joint for swelling.		
Inspect the oropharynx for swelling, exudates, ulcers, discharges and the size of the tonsils. Test the gag reflex.	Function of glossopharyngeal and vagus nerve.		
Inspect ion and palpation of the neck Inspect and palpate the neck for: masses, scars and pulsations.	Note any tremor, tics or spasms of the neck and head.		
Test range of movement of the neck.	Determine function of the sternocleidomastoid and trapezius muscles.		
Palpate trachea for size and alignment.	Note if it lies centrally in the suprasternal notch.		
Observe for jugular venous distention.	Assess the jugular venous pressure, and if jugular distention is observed.		
Palpate carotid pulses.	If indicated auscultate for bruits.		

Feedback and reflection on progress: **Date:**
Student:

Examination of the chest

Intervention	Key points	Y	N
Adhere to principles of examination of the chest. Examine posterior chest while patient is sitting up, anterior chest while patient is lying supine. Compare one side of being examined, with other side Visualize the position of the underlying organs and take findings of the upper airway into consideration.	Examine chest in following sequence: (inspection, palpation, percussion and auscultation)		
Assess for signs of respiratory distress: ✓ alar flare ✓ cyanosis (central cyanosis) or pallor ✓ dyspnea (restlessness and anxiousness) ✓ tachypnea ✓ use of accessory muscles ✓ Abnormal breathing sound for e.g. wheezing and stridor.	**Respond immediately and efficiently to prevent complications, if indicated**.		
Examination of the anterior chest: Inspect skin surface for the colour, intactness, lesions, scars and for dilated blood vessels.	Note any abnormal chest veins that are an indication of portal hypertension.		
Observe respiratory movements for depth and symmetry.	Note respiratory rate.		
Observe shape of chest for abnormalities.	Note funnel, barrel or pigeon chest.		
Inspect the apex beat.	Palpate if not found on inspection.		
Palpate the chest for the temperature, texture oedema, moisture and turgor.	Lift breast of woman to make palpation possible.		
Palpate the precordium: for thrills, lifts and heaves.	Tricuspid, pulmonic, aortic and mitral valve.		
Palpate chest wall for thoracic expansion.	Pneumonia or a collapsed lung may be associated with an unequal movement.		
Palpate chest wall for tactile vocal fremitus.	Note dull sounds on areas overlying organs		
Percuss for precordial dullness of the heart.	Midclavicular line, 5th intercostal space.		
Percuss for liver dullness.	Note enlargement, if liver not found in 6th interspaces.		
Percuss the lungs: directly on clavicles and interspaces.	Ask patient to lift arms above head to percuss lateral chest.		
Auscultate the breathing sounds.	Note vesicular and brongial breathing.		
Auscultate the heart sounds.	Observe abnormal sounds.		
Examination of the posterior chest: Inspect skin surface for the colour and any lesion and masses	Note any masses of the spinal column.		
Inspect the shape and symmetry of the spinal column.	Note deformities for e.g. kyphosis.		
Observe the quality of breathing and respiratory movements for depth, rhythm and for symmetry of respirations.	Observe for any abnormal respiratory movements.		
Palpate chest wall for texture oedema and moisture.	Palpate with palm of hand		
Palpate for swelling, tenderness and pain of the spinal column.	Respond on pain of the vertebrae		
Palpate chest wall for thoracic expansion.	Ensure to ask patient to inhale deeply.		
Palpate chest wall for vocal fremitus.	Note if fremitus is absent, stronger or weaker.		
Percussion of chest for sounds & pulsations.	Determine fluid or air in underlying tissue or if it is solid.		
Auscultate the posterior chest and listen for sounds.	Identify normal, abnormal and additional breathing sounds.		

Examination of the breasts and axillae

Intervention	Key points	Y	N
Explain to the patient the objective of the examination and how she can cooperate.	Give health education on breast cancer. Breast lumps must be regarded as potentially malignant, until it is proved otherwise. Allow the patient to perform self-breast examination.		
Inspect and palpate: breasts **Female breasts:** start with patient in a sitting position. Inspect the breasts for size, contour or shape, symmetry, masses or any flattening.	Inspect the breasts in various positions. Refer the patient for further assessment if a breast enlargement (bi- or unilateral) with tenderness is reported.		
Inspect the skin surface for discoloration, hyper pigmentation, and oedema or for any hyper vascular areas.	Observe for signs of mastitis.		
Observe the areola areas and nipples for the size, shape, colour, discharges, ulcers and any rashes.	Observe for signs of mastitis.		
Inspect for signs of any inversion, dimples or retractions of the skin.	Note if the venous pattern is prominent.		
Palpate breasts for masses, tenderness and for any nodules while the patient lies on her back.	Palpate entire breasts carefully and systematically with gloves. Compare the texture of the breasts with each other. Palpation of the gland and the regional lymph nodes must follow.		
Palpate nipples for masses and compress it to determine any discharges.	Observe the amount and colour of discharges.		
Male breasts: inspect for size, enlargement, and symmetry.	Note gynecomastia.		
Palpate the areola area for nodules.	Note tenderness or masses of areola area		
Inspect and palpate lymph nodes of the axillae. • Central lymph nodes deep into the axillae.	Ensure to inspect skin of axillae for rashes and pigmentation. Palpate with patients arm in abduction.		
• Pectoral lymph nodes	Note any enlarged lymph nodes.		
• Subscapular lymph nodes	As above		
• Lateral lymph nodes	As above		
• Supra and infraclavicular lymph nodes	As above		

Feedback and reflection on progress: **Date:**
Student:

Examination of the genitalia & inguinal area

Intervention	Key points	Y	N
General approach: Explain each step in the examination process Treat patient with respect and ensure privacy. Ask patient permission to perform the procedure. Wear gloves during the internal examination.	Respect wishes of the patient, for e.g. if a male patient wants to be examined by a male health care provider.		
Inspect and palpate the external **male genitalia:**	**Do procedure only, if indicated.**		
Inspect penis and glans for inflammation, nodules, lesions, discharge and swelling.	Patient can retract foreskin if uncircumcised.		
Palpate shaft of penis for tenderness and swelling.	Only if indicated.		
Inspect scrotum: texture, swelling, scars, inflammation, and oedema.	Enlarged veins / varicosities present.		
Palpate testes and epididymis for nodules, tenderness and for the size and shape.	The testes must move freely in the scrotal sac.		
Inspect and palpate inguinal canal for swelling and tenderness. Palpate hernias.	Ask patient to cough and observe swelling in the area.		
Inspect and palpate the external **female genitalia.**	Lithotomy position.		
Inspect distribution of pubic hair.	Note also the characteristics.		
Inspect skin surface of pubic area for lesions, swellings, inflammation and parasites.	Note that the skin colour of the external genitalia must be the same of rest of body.		
Inspect clitoris, urethral /vaginal orifice and labia majora for discharge, ulcers, nodules and inflammation.	Note tenderness of the labia minora may be due to traumatic bruising.		
Palpate any lesions.	Note signs of induration.		
Palpate for tenderness and swelling of Bartholin's gland.	If discharge present, take a culture.		
Palpate inguinal lymph nodes	Observe tenderness and any swelling.		
Perform a vaginal speculum examination:	**Do procedure, if indicated.**		
Inspect the vagina for discharge, redness and ulceration.	Take a pap smear at the same time.		
Bimanual examination can be carried out for the following:	**Do procedure, if indicated.**		
Tenderness and masses in the vaginal walls.	Lubricate speculum with warm water.		
Tenderness, consistency, mobility and nodules of the cervix.	Note any discharges and bleeding.		
Note size, shape, position, tenderness, and mobility of the uterus.	Note also any masses of the uterus.		
Inspect and palpate the anus and rectum: male and female	**Do procedure, if indicated.**		
Place patient in lateral position.	Wear gloves.		
Separate buttocks and inspect the anal areas for the colour, ulcers, inflammation, rashes and skin lesions.	Note skin colour of the anus is more pigmented than rest of the body.		
Palpate rectum for masses, tenderness and nodules.	Do rectal exam after vaginal exam.		

Feedback and reflection on progress: **Date:**
Student:

Examination of the abdomen

Intervention	Key points	Y	N
Adhere to principles of examination of the abdomen ✓ A supine position with arms on sides, head on pillow. ✓ Good lighting, expose abdomen and visualize underlying organs ✓ Bladder must be empty ✓ Warm room to avoid chilling and tensing of muscles ✓ Start away from painful areas, to avoid muscle guarding. ✓ Observe patient's face for signs of discomfort or pain.	Nurse: hands warm and nails short. **Follow sequence, inspection, auscultation, percussion and palpation.** Use distraction techniques to allow the patient to relax.		
Inspection: Observe skin integrity: discoloration, lesions, scars, stria, dilated veins or ecchymosis.	Bowel movements and pulsations of the aorta may be seen in thin patients.		
Umbilicus for shape, hernia, discharge or inflammation.	Take note of enlarged organs.		
Shape of the abdomen	Flat, round or scapoid		
Assess for symmetry or enlarged organs.	Abdomen should be flat, round or scapoid		
Note any swelling	Focus on inguinal and femoral areas.		
Observe pulsations of aorta and peristalsis of the abdomen.	Use tangential light.		
Auscultation: for bowel sounds in all quadrants	If absent listen for 5 minutes.		
Listen for vascular sounds: bruits of the abdominal aorta, iliac and femoral arteries.	Check arterial perfusion of legs if any bruits audible.		
Percussion: of liver and kidneys	**Note size of abdominal organs.**		
Percuss for the presence of solid and liquid masses or for any air and fluid in the abdominal cavity.	Note that percussion is resonant over the abdominal area.		
Percuss in all quadrants to identify distribution of tympany and dullness.	Excessive gas in the bowel will be identified by distorted percussion notes.		
Percuss for liver dullness to assess the size of the liver	Note when sounds become dull.		
Perform fist percussion over the kidneys.	Note tenderness or pain.		
Palpation: (superficial) to identify skin temperature, muscle rigidity, tenderness over abdomen & presence of large masses.	Start from Mc Burney's point (between the superior, anterior iliac spine.		
Test for ascites if indicated:	Note fluid thrill.		
Observe for tenderness and rigidity in right upper quadrant.	Murphy's sign present.		
Test for appendicitis: presence of rovsing or obturator sign	Note result of psoas test.		
Deep palpation: to identify abnormal masses. Test for rebound tenderness.	Note consistency, size and shape of masses if present.		
Palpate the liver If indicated.	Not palpable in most adults		
Palpate spleen for the presence of a mass.	If enlarged, be careful to prevent rupture		
Palpate kidneys for tenderness, size and shape.	Usually not palpable		

Feedback and reflection on progress: Date:

Student:----------

Examination of the musculoskeletal system

Intervention	Key points	Y	N
Inspect the posture and symmetry of the body.	Spine should be straight.		
Inspect skin surface of arms and legs for: colour, ulcers, scars, pigmentation and lesions.	Examine arms from fingertips to shoulders and legs from groin to toes.		
Palpation: skin temperature and for any oedema.	Check for pitted oedema.		
Radial, ulnar and brachial pulses.	Note volume and pressure.		
Palpate epitrochlear lymph nodes.	Note tenderness, size & consistency.		
Palpate superficial lymph nodes.	Vertical and horizontal group.		
Palpation of the following: femoral, popliteal, posterior tibial and dorsalis pedis pulses.	Listen over femoral arteries for murmurs. If pulses posterior to femoral pulses are weak.		
Examine bones and joints for the following:			
The structure, function, range of motion, masses and the condition of the surrounding tissue. Note also tenderness and changes in the structure of the bone.	Examine painful joints carefully to prevent injury.		
Inspect for redness of the skin, crepitation's, swelling in and around the joint.	Examination of the bones and joints must be integrated.		
Test range of motion and muscle strength if indicated.	Note limitation of motion and that the patient do not experience pain during the movements.		
Test range of movement of temperomandibular joint.	Note movement, tenderness and sounds		
Test neck for range of movement.	Include flexion, extension and rotation.		
Test flexion and extension of the head	Between head and first vertebrae.		
Test range of movement of the shoulder joint.	Note limitation in range of movement, crepitations and pain.		
Test elbow joints, hands and wrists	Assess for carpal tunnel syndrome.		
Inspect knees for alignment and for symmetry.	Note oedematous or inflamed knees. Pain for e.g. in bursitis or any signs of rheumatoid arthritis.		
Test ankles and feet for range of movement	Note misalignment of feet with ankle.		
Test flexion, hyperextension and rotation of the back.	Note any scoliosis.		

Feedback and reflection on progress: **Date:**
Student:

Examination of the nervous system

Intervention	Key points	Y	N
Determine the patient's mental status and level of consciousness, by determining the following: If patient displays difficulty in speaking. The patient's orientation to time, place and person. The patient's attention span and any lapses in memory.	Tense muscles may indicate anxiety and slow movements may indicate depression.		
Examination of cerebellar system: Romberg's test	Ensure to support the patient in case of patient losing his/her balance.		
Examination of motor function and balance of legs and arms.			
Examination of motor nervous system: muscle tone and strength. neck muscles, deltoid; biceps; triceps and wrist joint muscles. Include the leg and ankle joint and foot muscles.	Assess for tremors, muscle contraction and fibrillation.		
Test the tendon reflexes: biceps; triceps knee and ankle reflex	Ensure that the patient is relaxed during the procedure before grading of the reflexes.		
Test the superficial reflexes: abdominal plantar	Note contraction of abdominal muscles and flexion of the toes.		
Exam of the sensory nervous system: test for response to pain, test for light touch and vibration	Tests can be done with the patient keeping the eye closed.		
Test for meningeal irritation: neck stiffness Brudzinski's sign Kernig's sign	Note evidence of meningitis.		
Examine cranial nerves: 1st cranial nerve -olfactory	Note absence of smell or lack of taste.		
2nd cranial nerve - optic	Observe near and distant vision.		
3rd cranial nerve - oculomotor	Observe extra ocular movements.		
4th cranial nerve - trochlear	Observe extra ocular movements.		
5th cranial nerve - trigeminal	Note corneal reflex, sensation of the face and movement of the masticatory muscle.		
6th cranial nerve - abducens	Observe extra ocular movements.		
7th cranial nerve - facial	Observe contraction of facial muscle.		
8th cranial nerve - vestibulocochlear	Note hearing and balance.		
9 /10th cranial nerve glossopharyngeal/vagus	Observe gag reflex, position of uvula and soft palate and vocal chords.		
11th cranial nerve accessory	Observe extra ocular movements.		
12th cranial nerve hypoglossal nerve	Observe deviation of tongue.		

Feedback and reflection on progress: **Date:**
Student:

Diagnosis and management plan

Outcome: The nurse makes a diagnosis and draw up a care plan.

ASSESSMENT CRITERIA:

- Identify the patient's problem/s and **make a diagnosis**
- **Draw up a care plan**, consult the patient on the plan and continue with the patient's permission.
- Demonstrates correct administration and monitoring of **medication.**
- Identify increased risks for the development of a health problem. Utilize the subjective and objective data to support the **health promotion and counseling** on specific health concerns.
- **Referral and follow up** to support behavior change and to prevent complications.
- **Records data** that is objective, clear, accurate and complete
-

Intervention	Key points	Y	N
Identify problems and make a diagnosis / or differential diagnosis			
Identify and localize all your abnormal findings anatomically.			
Interpret the findings in terms of the pathologic process involving diseases of a body structure.	Integrate theory to practice.		
Utilize previous knowledge/ experience, consult colleagues/ literature	Ensure evidence based practice.		
Confirm your diagnosis with laboratory tests and other investigations.	Make a final diagnosis		
Develop a plan for each problem in consultation with the patient.	And the multidisciplinary team.		
Management plan/objectives			
Drug – treatment.			
Prescription in patients record: date, name of medicine written in full: no abbreviations, schedule, generic name, strength, dosage, frequency (state in terms of hours), duration of treatment, amount. **Patient data:** name/number, schedule, generic name, strength, dosage, volume, amount, frequency, batch number, expiry date, facility's name and address. Date medication issued.	Prescribe medication according to policy and protocol of the PHC facility.		
Health promotion & counseling:			
Identify health risks for the patient's age group and cultural status Enable the patient to make informed decisions about their health care. Counsel, guide and give health education to patients. Set goals in consultation with the patient and family members.	Make patients feel that they have control over their health. Provide and facilitate support for caregivers and the family.		
Referral and discharge			
Referrals to other health professionals and community organizations. Give follow up appointment.	Evaluate outcomes to support continuous behavior change.		
Recordkeeping			
Analyze and interpret data collected. Summarise data and allow the patient to add or clarify information	Accurate record keeping is essential		

STEP 5: The collection of evidence that demonstrates if performance indicators have been met

Case based activities

The case based problem solving activities will allow you to gather data about a specific clinical problem; perform a physical examination; interpret your findings and respond to the patient's needs. You will then evaluate the effects of nursing care rendered and reflect on the experience, describing what you have learned. The activities will also guide you to demonstrate competency with the course objectives and how to complete all case based activities in the PHC facilities to complete your register of approximately 100 patients, which is a requirement from SANC.

Instructions on completion of activities:

- You may complete the case based activities in any order.
- Complete a learning development plan and discuss it with your mentor/lecturer to ensure that you will meet your individual learning needs.
- **Write brief notes only, to demonstrate your understanding.**
- Use the knowledge and skills required under the ICN's framework to guide you with answers.

1	Professional, ethical, legal practice
2	Nursing practice (provision & management)
3	Professional, personal & quality development

- Use prescribed material and current policies and protocols.
- Apply the guiding principles of primary health care and comprehensive health care.

- Apply the Neuman System Model (1995) to complete the case presentations.
- Use Tanner's (2006) Clinical Judgement Model Guide for Reflection to assist you with completion of the reflection reports.

Case studies will be assessed by the mentor: The following criteria will be identified:

1	Subjective data
2	Objective data, using the 4 cardinal techniques.
3	Diagnosis, decision making
4	Management objectives and development of a care plan
5	Health promotion and counseling
6	Referral and discharge
7	Peer discussions fostering progression from novice to beginner performance.
8	Clinical reasoning exercises
9	Evidence based practice activities
10	Accurate documentation of data
11	Learning development plan
12	Reflection on practice

Case based activity 1

Course objective: Adhere to professional, ethical, legal practice

Learning outcome:

The nurse practices according to the relevant legislation and within the profession's codes of ethics & conduct.

Reflection on prior knowledge:

- Ethical principles and moral decision making as internalized in daily practice.
- Anatomy and physiology of the integumentary system.
- Pharmacological management of disease conditions of the integumentary system.

Assignment: Select a patient with a condition of the integumentary system and complete the following activities.

CASE: Provide a brief description of the case; include the main complaint/s and observation of physical and emotional appearance.

---

1. Subjective data.

1.1 Take a focused history of the patient's problemand identify the seriousness of the patient's problems and the relationships between the problems **(social and psychological).**

---

1. 2 Allow the patient to elaborate on the skin lesion or rash and which part of the body is affected to ensure a correct diagnosis.

---

2. Objective data

2.1 Complete the baseline measurements and vital signs. Interpret your findings and identify the clinical

significance of abnormal values for e.g. pyrexia to identify a generalised illness.

---

2. 2 Examination (**inspection and palpation**) the skin, hair and nails carefully, and record your findings.

---

2. 3 Assess for any enlarged lymph nodes, enlarged spleen or liver to rule out a generalised illness.

2.4 Identify all the investigations that were done for e. g. a pus swab or referral for skin allergy test.

---

3. Diagnosis , decision making: ---

4. Management plan(Identify management objectives and include drug treatment)

---

5. Health promotion activities (take in consideration the patient's culture, development stage, income etc.)

---

6. Referral and discharge:

Allow the patient to explain the use of prescribed medications: (oral, creams and ointments etc.)

---

7. Peer discussion:

7.1 Discuss if the principles of PHC was adhered to in the health care of your patient.

Include negative and positive aspects. Refer to (comprehensive PHC) page three.

7.2 Give reasons for your answers after consultation with the patient.

---

8. Clinical reasoning exercise:

8.1 Discuss the importance of the general examination of the patient to detect signs of systemic illness.

8.2 Gives examples of the signs and symptoms involved in your patient that could indicate a systemic illness for e.g. HIV/AIDS (if indicated).

8.3 Discuss why and when you will refer the patient to secondary services, if you are unsure of the diagnosis.

---

9. Evidence based practice activity:

The 'pathophysiology of some skin diseases is multifactorial'. Discuss if the cause of your patients condition is due to genetic, physiological, immunological or environmental factors.

---

10. Learning development plan

Identify the resources and learning strategies that you used to achieve the learning outcomes

---

Reflect on your experience: Apply Tanner's, 2006 model, whilst doing activity 1 and identify your nursing response to enhance critical thinking and decision-making skills

Criteria:

- Engage actively in self-evaluation and reflection to acknowledge strengths and areas of weakness.
- Discuss and review your practice through active engagement with your peers and PHC colleagues.
- Seeks and responds to feedback from the mentor, lecturer and the PHC team at the facility.

What did you **noticed** about the situation initially?

What is your **interpretation** (e.g. its cause, vital signs?)

How did you **respond** to the patient, family? List the actions.

Reflection – on action & clinical learning:

3 ways your nursing skills expanded.

Things you might do differently in a similar situation.

What additional knowledge/skills do you need, in a similar situation?

Describe changes in your values/feelings as a result of the experience.

Signatures: Student ..... **Mentor** ..... **Date** .....

Case based presentation: Assessment and feedback from mentor on achievement of Activity 1

The student must demonstrate understanding of the disease condition/s and how it is managed at primary care level, through accurate and relevant information on the following content:

Apply Benner's 1984 stages [Table 4] Scale	1	2	3	4	5	Comments
CRITERIA						
1. Subjective data **1.1** Did the student explore the patient's health problem, fears and expectations appropriately? 1.2 Identify if the data obtained is complete and logically structured?						
2. Objective data **2.1** Is all relevant clinical signs obtained by using the 2 cardinal techniques (inspection and palpation). 2.2 Is the Interpretation of vital observations clearly identified and recorded.						
3. **Diagnosis, decision making** Diagnosis confirmed with laboratory tests and other investigations, to make a final diagnosis/differential diagnosis.						
4. **Management objectives and care plan** 4.1 Are all the problem outcomes logically and thoroughly planned in consultation with the patient? 4.2 Is the plan realistic, measurable and with a time frame?						
5. Health promotion and counseling The student implemented disease prevention and health education programmes.						
6. Discharge and referral Done in consultation with the patient and the PHC team.						
7. Peer discussions Evidence of peer feedback and discussions.						
8. Clinical reasoning exercises and evidence based practice activities Evidence of literature and PHC team consulted.						
9. Documentation of data **9.1** Evidence of accurate, logical and complete data. 9.2 Did the student verify all the information with the patient?						
10. Reflection on practice Is there evidence of the development of learning that has taken place by the student.						

Overall comment on performance and action to be taken if student not found competent:

……

……

……

Signatures: Mentor ---------- Student: ---------- Date: .....

Case based activity 2

Course objective 2 - Competent technical skills

Learning outcomes:

- The nurse interviews the patient and gathers an accurate and relevant history that is sensitive to the patient's expectations, fears, feelings and cultural values.
- The nurse performs a focused physical examination, formulate a diagnosis and draw up a care plan in consultation with the patient, care givers and the PHC team.

Reflection on prior knowledge:

Anatomy & physiology of the lungs and respiratory system.

Pharmacological management of disease conditions of the lungs and respiratory system.

Assignment: Select a patient with TB and complete the following activities:

CASE: Provide a brief description of the case. Include the main complaint/s and observation of physical and emotional appearance.

---

1. Objective data:
1.1 Assess the patient for signs of respiratory difficulty: Identify any of the following signs: jaundice, anaemia, clubbing, cyanosis, oedema and lymphadenopathy.
Describe your response to the patient in need of immediate care.

---

1. 2 Complete the vital signs and discuss the clinical significance of abnormal findings.

---

2. Subjective data: Take a focused history of the patient's problem, social lifestyle and occupational health.

---

3. Objective data
1. 3 Examine the thorax carefully, by using the 4 cardinal techniques. Identify the percussion notes and breath sounds.

---

1. 4 Identify if any of the clinical features indicate the spread of infection to all body systems.

---

3. Diagnosis, decision making: ----------

4. Draw up a **management plan** (Identify management objectives +drug treatment) in consultation with the patient, caregivers & the PHC team.

4.1 Describe the use of the DOTS system to support your patient and to ensure compliance.

4.2 Complete all investigations (sputum for AFBs, GeneXpert test, HIV test, and chest x-rays etc.)

---

5. Health promotion and counselling:

5.1 Promote lifestyle modification and reduction of risk factors (Include screening of contacts)

5.2 Identify the need for TB chemoprophylaxis of contacts.

---

6. Referral and discharge:

6. 1 Discuss the referral of the patient in need of drug, alcohol and smoking addictions and follow up appointments to assess progress.

---

6. 2 Discuss drug management and important drug interactions. Advise the patient on the adverse effects of TB drugs.

---

6. 3 Assessment of the nutritional status of the patient. Identify the direct link of the causes of poor nutrition and TB.

---

7. Peer discussion:

7.1 Give your assessment record to one of your peers for marking. Your peer must check if the data is:

- ✓ objective and accurate
- ✓ clear, with sufficient detail to support the assessment & plan
- ✓ if important data is omitted or if there is too much detail

Write down the feedback:

---

7. 2 Discuss with peers the measures to adopt that will diminish (how to protect you) the risk of Occupational infection. Refer to appendices 'Health and safety in the practice setting' and Pulsa Plus.

---

8. Clinical reasoning exercise:

South Africa is falling behind in reaching its targets for the United Nation's Millennium Development Goals (MDGs). Discuss reasons for this that has a direct link to TB in South Africa.

---

9. Evidence based practice activity:
'**Antibiotic resistance is a threat to control a communicable disease such as TB'**. Search a current article on the challenges and priorities of the pharmaceutical industry to develop new and effective antimicrobial therapies. **Give feedback to your peers.**

---

10. Learning development plan
Identify the resources and learning that you used to achieve the learning outcomes and the learning strategies that you used to facilitate your learning needs.

Reflect on your experience: Apply Tanner's, 2006 model whilst doing activity 2 and identify your nursing response to enhance critical thinking and decision-making skills.

Criteria:

- Engage actively in self-evaluation and reflection to acknowledge strengths and areas of weakness.
- Discuss and review your practice through active engagement with your peers and PHC colleagues.
- Seeks and responds to feedback from the mentor, lecturer and the PHC team at the facility.

What did you **noticed** about the situation initially?

What is your **interpretation** (e.g. its cause, vital signs)

How did you **respond** to the patient, family? List the actions.

Reflection – on action & clinical learning:

3 ways your nursing skills expanded.

Things you might do differently in a similar situation.

What additional knowledge/skills do you need, in a similar situation?

Describe changes in your values/feelings as a result of the experience.

Signatures: Student ..... **Mentor** ..... **Date** .....

Case based presentation: Assessment and feedback from mentor on achievement of Activity 2.

The student must demonstrate understanding of the disease condition/s and how it is managed at primary care level, through accurate and relevant information on the following content:

Apply Benner's 1984 stages [Table 4] Scale	1	2	3	4	5	Comments
CRITERIA						
1. Subjective data Did the student explore the patient's health problem, fears and expectations appropriately? Is the data obtained complete and logically structured?						
2. Objective data Did the student obtain all relevant clinical signs by using the 4 cardinal techniques? Is the interpretation of vital observations clearly identified and recorded.						
3. **Diagnosis, decision making** Is the diagnosis confirmed with laboratory tests and other investigations, to make a final diagnosis/differential diagnosis?						
4. **Management objectives and care plan** Is all problem outcomes logically and thoroughly planned in consultation with the patient? The plan must be realistic, measurable with a time frame.						
5. Health promotion and counseling Did the student implement a disease prevention and health education programme for the patient?						
6. Discharge and referral In consultation with the patient and the PHC team.						
7. Peer discussions Evidence of peer feedback and discussions.						
8. Clinical reasoning and evidence based activities Evidence of literature consulted.						
9. Documentation of data Is data accurate, logical and complete? s all information verified with the patient?						
10. Reflection on practice Is there evidence of the development of learning that has taken place by the student.						

Overall comment on performance and action to be taken if student not found competent:

……

……

……

Signatures: Mentor ---------- Student:---------- Date: .....

Case based activity 3

Course objective: Critical thinking

Learning outcomes:

- Applies critical thinking and clinical reasoning skills to explain nursing decisions and interventions.
- Responds appropriately and in time to unexpected or rapidly changing situations.
- Measure and interpret vital observations and analyses data from tests in consultation with colleagues.

Reflection on prior knowledge:

Anatomy and physiology of the heart and the peripheral vascular system.

Pharmacological management of disease conditions of the heart & peripheral vascular system.

Assignment: Select a patient with a condition of the heart &peripheral vascular system.

CASE: Provide a brief description of the case; include the main complaint/s and observation of physical and emotional appearance.

---

1. Objective data: Gather the patient's history: Guide the patient to elaborate on the areas that seem most significant to the problem.Use close - ended questions to elicit the seven attributes of a symptom.

---

2. Subjective data: Measure vital signs and discuss the clinical significance of abnormal values for e.g. the blood pressure, pulse and respiration tare.

2.1 **Examine** the chest / precordium carefully by using the 4 cardinal techniques. Identify abnormal percussion notes and heart sounds (e.g. murmurs/added sounds) on auscultation.

2.2 Examine the femoral pulses and the pulses of the abdominal area. Include the carotid pulses,

and the(JVP) jugular venous pressure.

2.3 Discuss and confirm your results with team members.

---

3. Make a **diagnosis** and confirm it with further investigations and tests (common cardiac investigations: ECG, echocardiography) in consultation with members of the PHC team.

3.1 Identify if your patient has any signs suggesting of vascular disease?

---

4. Draw up a **management plan:** include (drug management) in consultation with the patient, caregivers and the PHC team.

---

5. Health promotion: Identify risk factors (diet, smoking, exercise) and implement **lifestyle modification** in consultation with the patient, care givers and family members

---

---

6. Referral and discharge: Discuss the medical management of the patient and refer if indicated.

---

7. Peer discussion: Present this patient to your peers. A guide to preparation of a case study is presented in the appendices.

7.1 Discuss the major stress areas as perceived by the patient and by the caregiver.

7.2 Discuss the following **intrapersonal factors** affecting the patient to environmental influences:

7.2.1 Physical dimension: for e.g. infection or pain experienced by the patient.

7.2.2 Psycho-sociocultural dimension:

---

7. 2.3 Developmental dimension:

---

7. 2.4 Spiritual belief system: for e.g. feelings and thoughts experienced by the patient.

---

7. 3 Describe the resources and relationships that influence the dimensions of health of your patient

(Interpersonal and extra personal factors).

---

7. 4 Discuss the nursing diagnosis (including desired outcomes, goals, prevention and evaluation).

---

8. Clinical reasoning exercise: Discuss if your patient have any risk factors for hypertension or coronary artery disease.

---

9. Evidence based practice activity:

'Referred pain' is a common finding on assessment of patients in pain. Search an article on 'referred pain' and identify if you would consider if any distant sites are involved after examination of the patient.

---

10. Learning development plan

Identify the resources that you used to achieve the learning outcomes. Identify the learning strategies that you used to facilitate your learning needs.

Reflect on your experience: Apply Tanner's, 2006 model whilst doing activity 3 and identify your nursing response to enhance critical thinking and decision-making skills.

Criteria:

- Engage actively in self-evaluation and reflection to acknowledge strengths and areas of weakness.
- Discuss and review your practice through active engagement with your peers and PHC colleagues.
- Seeks and responds to feedback from the mentor, lecturer and the PHC team at the facility.

What did you **noticed** about the situation initially?

What is your **interpretation** (e.g. its cause, vital signs?)

How did you **respond** to the patient, family? List the actions.

Reflection – on action & clinical learning:

3 ways your nursing skills expanded.

Things you might do differently in a similar situation.

What additional knowledge/skills do you need, in a similar situation?

Describe changes in your values/feelings as a result of the experience.

Signatures: Student ..... **Mentor** ..... **Date** .....

Case based presentation: Assessment and feedback from mentor on achievement of Activity 3.

The student must demonstrate understanding of the disease condition/s and how it is managed at primary care level, through accurate and relevant information on the following content:

Apply Benner's 1984 stages [Table 4] Scale	1	2	3	4	5	Comments
CRITERIA						
1. Subjective data 1.1 The student explored the patient's health problem, fears and expectations appropriately. 1.2 Data obtained is complete and logically structured.						
2. Objective data 2.1 All relevant clinical signs obtained by using the 4 cardinal techniques. 2.2 Interpretation of vital observations clearly identified and recorded by the student.						
3. **Diagnosis, decision making** Diagnosis confirmed with laboratory tests and other investigations, to make a final diagnosis/differential diagnosis.						
4. **Management objectives and care plan** 4.1 Did the student plan all the problem outcomes logically and thoroughly in consultation with the patient? 4.2 Is the care plan realistic and measurable with a time frame?						
5. Health promotion and counseling Did the student implemented disease prevention and health education programmes.						
6**. Discharge and referral** In consultation with the patient and the PHC team.						
7. **Peer discussions** Evidence of peer interaction /feedback and discussions.						
8. **Clinical reasoning** Evidence of literature and the PHC team consulted.						
9. **Documentation of data** **9.1** Is data accurate, logical and complete. 9.2 Did the student verify all the information with the patient?						
10. **Reflection** Is there evidence of the development of learning that has taken place by the student?						

Overall comment on performance and action to be taken if student not found competent:

……

……

……

Signatures: Mentor ---------- Student:---------- Date: .....

Case based activity 4

Course objective – Culturally competent health care:

Learning outcomes:

The nurse recognizes culturally sensitive needs and adapts practice accordingly.

The nurse integrates the principles of PHC in the delivery of care rendered.

Reflection on prior knowledge:

Human rights and ethical principles as internalized in PHC practice.

Anatomy and physiology of all the systems of the human body.

Pharmacological management of the systems of the human body.

Assignment: Select a patient with the WHO stage 2 or 3 HIV and complete the following tasks.

CASE: Provide a brief description of the case; include the main complaint/s and observation of physical and emotional appearance.

---

1. Objective data: Take a detailed history of the patient's problem, nutritional status, lifestyle and occupational health status. Adhere to ethical principles during the interview.

1.1 Discuss if you have adhered to the following important issues during history taking.

Did you understand the patient's cultural heritage and language requirements?

Did you select / and phrase questions that were not complex for the patient to respond to?

Did you encourage the patient to discuss the meaning of health & illness with you?

---

2. Subjective data:
2.1 Measurement and interpretation of vital signs and body weight (BMI).

2.2) Examination of all body systems carefully by using the 4 cardinal techniques. Identify clinical features indicating early opportunistic infections.

---

3. Diagnosis, decision making: Review the clinical staging of the client on the basis of the history and clinical examination.

3.1 **Discuss investigations performed:**

Monitor CD4:----------

Viral load: ----------

Baseline blood results: ----------

4. **Health promotion and counselling:** Promote lifestyle modification and reduction of risk factors
4.1 Screening for TB and IPT therapy

4.2 Assess nutritional status and promote good nutrition:

---

4. 3 Screening and management for STI's. Advice on safer sexual practices and contraception

---

4. 4 Assessment of the psycho-social readiness of the patient for ARVs

---

4. 5 Identification of the need for social assistance.

---

4. 6 Identification of the need for counselling of family members.

---

5. Draw up a **drug management plan** in consultation with the patient, caregivers and the PHC team.

---

6. Referral and discharge: Discuss if the patient needs to be referred for nurse managed care or to a doctor for second –line treatment.

---

7. Peer discussion: Discuss with peers counselling skills to ensure that your patient is received and treated with respect, dignity and sensitivity.

List counselling tips:

---

8. Clinical reasoning: Lymphadenopathy is a common finding in HIV disease.

Discuss if your patient show signs of lymphadenopathy due to the HIV infection itself or if you need to consider causes of generalized lymphadenopathy.

---

9. Evidence based practice

Search an article on the psycho-social readiness of patient's for ARVs and identify if the protocols of the PHC facility on the use of ARVs are current and if it is being adhered to.

---

10. Learning development plan

Identify the resources and learning strategies that you used to achieve the learning outcomes.

Reflect on your experience whilst doing activity 4 and identify your nursing response to enhance critical thinking and decision-making skills (Tanner, 2006).

Criteria:

- Engage actively in self-evaluation and reflection to acknowledge strengths and areas of weakness.
- Discuss and review your practice through active engagement with your peers and PHC colleagues.
- Seeks and responds to feedback from the mentor, lecturer and the PHC team at the facility.

What did you **noticed** about the situation initially?

What is your **interpretation** (e.g. its cause, vital signs?)

How did you **respond** to the patient, family? List the actions.

Reflection – on action & clinical learning:

3 ways your nursing skills expanded.

Things you might do differently in a similar situation.

What additional knowledge/skills do you need, in a similar situation?

Describe changes in your values/feelings as a result of the experience.

Signatures: Student ..... **Mentor** ..... **Date** .....

Case based presentation: Assessment and feedback from mentor on achievement of Activity 4

The student must demonstrate understanding of the disease condition/s and how it is managed at primary care level, through accurate and relevant information on the following content:

Apply Benner's 1984 stages [Table 4] Scale	1	2	3	4	5	Comments
CRITERIA						
1. Subjective data 1.1 Did the student explore the patient's health problem, fears and expectations appropriately? 1.2 Is data obtained complete and logically structured?						
2. Objective data 2.1 Is all relevant clinical signs obtained by using the 4 cardinal techniques? 2.2 Did the student clearly identified and Interpret vital observations.						
3. **Diagnosis, decision making** Diagnosis confirmed with laboratory tests and other investigations, to make a final diagnosis/differential diagnosis.						
4. **Management objectives and care plan** 4.1 Are the problem outcomes logically and thoroughly planned in consultation with the patient? 4.2 Are the plan realistic and measurable with a time frame?						
5. Health promotion and counseling The student implemented disease prevention and health education programmes.						
6. Discharge and referral In consultation with the patient and the PHC team.						
7. Peer discussions Evidence of peer feedback and discussions.						
8. Clinical reasoning Evidence of literature and PHC team consulted.						
9. Documentation of data **9.1** Is the data accurate, logical and complete. 9.2 Is all information verified with the patient?						
10. **Reflection** Is there evidence of the development of learning that has taken place by the student?						

Overall comment on performance and action to be taken if student not found competent:

……

……

……

Signatures: Mentor ---------- Student:---------- Date: .....

Case based activity 5

Course objective: Health promotion

Learning outcomes:

- Provide guidance to individuals, families and communities in activities to reduce illness and promote healthy life styles.
- The nurse actively engages the patient as a partner in health care through identification of health risks, counseling and implementation of health promotion practices.

Reflection on prior knowledge:

Health promotion activities, applying the Ottawa Charter principles.

Anatomy and physiology of the reproductive system

Pharmacological management of disease conditions of the reproductive system

Assignment: Select a patient (male or female) with a sexually transmitted infection and complete the following activities:

CASE: Provide a brief description of the case; include the main complaint/s and observation of physical and emotional appearance.

---

1. Objective data: Take a focused history of the patient's gynaecological history, sexual and reproductive health, including medication use, allergies etc. **Adhere to ethical principles.**

---

2. Subjective data:

2.1 Measure and interpret vital observations: Identify if your patient is severely ill and if the patient needs immediate referral.

2.2 Examine the abdomen and genitalia carefully by using the techniques (inspection and palpation). Identify clinical features associated with lower abdominal pain or cervical tenderness in the female.

---

2. 3 Complete all investigations needed and do a Pap smear, if indicated. Identify the

cervical screening technique used.

2.4 Do a breast examination and then teach the patient the self-examination. Encourage the patient to report unusual findings immediately.

---

3. Diagnosis, decision making: ----------

---

4. Health promotion and counselling:

4.1 Identify social, personal, cultural & environmental factors that put your patient's health at risk.

---

4. 2 Identification of the reasons why the patient continues with this health risk behaviours.

---

4. 3 Decide in agreement with the patient what could be more sensible behaviour. Suggest changes in each of the circumstances mentioned above.

4.4 Discuss how you would persuade the patient to change his/her high risk sexual behaviour. Discuss referral, follow - up etc.

---

5. Draw up a **management plan** in consultation with the patient, caregivers and the PHC team.

---

6. Referral and discharge: Include contact tracing, treatment of the partner and management of the

pap smear result.

---

7. Peer discussion: Include prevention of HIV, pregnancy, syphilis, gonorrhoea and cervical cancer. Discuss with peers the management of the patient by applying the following Ottawa Charter principles.
7.1 Develop personal skills as people take responsibility for their own health:

7.2 Create a supportive environment to create and sustain environments that are supportive of health:

7.3 Re-orient health services towards promoting health and preventing disease:

---

8. Clinical reasoning:
Pelvic inflammatory disease may be one of the first signs that a patient has a sexually transmitted infection (STI's). Discuss the management of a patient and the partner with (STI's).

---

9. Evidence based practice:
Search an article on "gonococcal resistance to ciprofloxacin' and give a brief discussion if the protocols used by the PHC facility is current and being adhered to.

---

10. Learning development plan
Identify the resources and learning strategies that you used to achieve the learning outcomes.

Reflect on your experience: Apply Tanner's, 2006 model whilst doing activity 5 and identify your nursing response to enhance critical thinking and decision-making skills.

Criteria:

- Engage actively in self-evaluation and reflection to acknowledge strengths and areas of weakness.
- Discuss and review your practice through active engagement with your peers and PHC colleagues.
- Seeks and responds to feedback from the mentor, lecturer and the PHC team at the facility.

What did you **noticed** about the situation initially?

What is your **interpretation** (e.g. its cause, vital signs?)

How did you **respond** to the patient, family? List the actions.

Reflection – on action & clinical learning:

3 ways your nursing skills expanded.

Things you might do differently in a similar situation.

What additional knowledge/skills do you need, in a similar situation?

Describe changes in your values/feelings as a result of the experience.

Signatures: Student ..... **Mentor** ..... **Date** .....

Case based presentation: Assessment and feedback from mentor on achievement of Activity 5

The student must demonstrate understanding of the disease condition/s and how it is managed at primary care level, through accurate and relevant information on the following content:

Apply Benner's 1984 stages [Table 4] Scale	1	2	3	4	5	Comments
CRITERIA						
1. Subjective data The student explored the patient's health problem, fears and expectations appropriately. Data obtained is complete and logically structured.						
2. Objective data Is all relevant clinical signs obtained by using the 4 cardinal techniques. Did the student clearly identified and interpret vital observations.						
3. **Diagnosis, decision making** Did the student confirm the diagnosis with laboratory tests and other investigations, to make a final diagnosis?						
4. **Management objectives and care plan** Is the problem outcomes logically and thoroughly planned in consultation with the patient? Is the plan realistic and measurable with a time frame?						
5. Health promotion and counseling The student implemented disease prevention and health education programmes.						
6. Discharge and referral In consultation with the patient and the PHC team.						
7. Peer discussions. Evidence of peer feedback and discussions.						
8. Clinical reasoning Evidence of literature and PHC team consulted.						
9. Documentation of data Is the data accurate, logical and complete. Is all information verified with the patient?						
10. **Reflection** Is there evidence of the development of learning that has taken place by the student?						

Overall comment on performance and action to be taken if student not found competent:

……

Signatures: Mentor ---------- Student:---------- Date: .....

Case based activity 6

Course objective: Effective communication

Learning outcomes:

The nurse establishes priorities of care in collaboration with other professionals to determine more effective interventions and to improve care and comfort.

Records data that is objective, accurate, complete and consistent with protocols of PHC facility

Reflection on prior knowledge:

The fundamentals of interprofessional health care.

Anatomy and physiology of the neurological system.
Pharmacological management of disease conditions of the neurological system.

Assessment of systems: neurological system

Assignment: Select a patient with a neurological problem (for e.g. headaches, epilepsy) and complete the following activities:

CASE: Provide a brief description of the case; include the main complaint/s.

---

1. Subjective data: Obtain a mental health history from the patient / care giver or family member

---

---

2. Objective data:
2.1Observe the patients physical appearance, behaviour, cognitive functions and thought processes.

Interpret your findings.

---

2. 2 Measure and interpret vital signs:

---

2. 3 Obtain the assistance of the mental health nurse practitioner to assist you with examination of the nervous system under each of the following. Discuss each of the following

Motor nervous system

Sensory nervous system

Tendon reflexes

Testing of cranial nerves

---

3. Diagnosis, decision making: ----------

4. Management plan: Include investigations: ----------

5. Health promotion and counselling:

Explain the pharmacological management (if indicated) to the patient and caregiver/family member with the assistance of the mental health nurse practitioner.

---

6. Referral and discharge: Discuss the referral of the patient to other agencies/ organisations. Write referral letters to members of the health care team.

---

7. Peer discussions: Discuss with peers disorders of cranial nerves.

---

8. Clinical reasoning: Identify the factors that will put your patient at risk for depression.

---

9. Evidence based practice: Search an article on your patient's condition and give a brief discussion if the protocols used by the PHC facility are current and being adhered to.

---

10. Learning development plan: Identify the resources that you used to achieve the learning outcomes. Identify the learning strategies that you used to facilitate your learning needs.

Reflect on your experience: Apply Tanner's, 2006 model whilst doing activity 6 and identify your nursing response to enhance critical thinking and decision-making skills.

Criteria:

- Engage actively in self-evaluation and reflection to acknowledge strengths and areas of weakness.
- Discuss and review your practice through active engagement with your peers and PHC colleagues.
- Seeks and responds to feedback from the mentor, lecturer and the PHC team at the facility.

What did you **noticed** about the situation initially?

What is your **interpretation** (e.g. its cause, vital signs?)

How did you **respond** to the patient, family? List the actions.

Reflection – on action & clinical learning:

3 ways your nursing skills expanded.

Things you might do differently in a similar situation.

What additional knowledge/skills do you need, in a similar situation?

Describe changes in your values/feelings as a result of the experience.

Signatures: Student ..... **Mentor** ..... **Date** .....

Case based presentation: Assessment and feedback from mentor on achievement of Activity 6

The student must demonstrate understanding of the disease condition/s and how it is managed at primary care level, through accurate and relevant information on the following content:

Apply Benner's 1984 stages [Table 4] Scale	1	2	3	4	5	Comments
CRITERIA						
1. Subjective data 1.1 Did the student explore the patient's health problem, fears and expectations appropriately? 1.2 Is data obtained complete and logically structured?						
2. Objective data 2.1 Are all relevant clinical signs obtained by using the 4 cardinal techniques? 2.2 Did the student clearly identified and Interpret vital observations.						
3. **Diagnosis, decision making** Did the student confirm the diagnosis with laboratory tests and other investigations, to make a final diagnosis						
4. **Management objectives and care plan** 4.1 Are the problem outcomes logically and thoroughly planned in consultation with the patient? 4.2 Are the plan realistic and measurable with a time frame?						
5. Health promotion and counseling Did the student implemented disease prevention and health education programmes.						
6. Discharge and referral In consultation with the patient and the PHC team.						
7. Peer discussions Evidence of peer feedback and discussions.						
8. Clinical reasoning Evidence of literature and PHC team consulted.						
9. Documentation of data 9.1 Are the data accurate, logical and complete. 9.2 Are all information verified with the patient?						
10. **Reflection** Is there evidence of the development of learning that has taken place by the student?						

Overall comment on performance and action to be taken if student not found competent:

……

Signatures: Mentor ---------- Student:---------- Date: .....

Case based activity 7

Course objective – Evaluation of nursing practice

Learning outcomes:

- Evaluate nursing practice, patient care and ensure quality improvement and evidence-based practice
- The nurse identifies the relevance of using literature and research findings to improve current practice.

Reflection on prior knowledge:

Anatomy and physiology of the musculoskeletal system.

Pharmacological management of disease conditions of the musculoskeletal system.

Assignment: Select a patient with a condition of the musculoskeletal system and complete the following activities:

CASE: Provide a brief description of the case; include the main complaint/s and observation of physical and emotional appearance.

---

1. Subjective data:

1.1 Take a focused history of the patient's problem. Identify concerning symptoms related to: past history, family history, occupation and the use of medication.

1.2 Use close - ended questions to elicit the seven attributes of a symptom for e.g**. pain.**

---

2. Objective data:

2.1Measure and interpret vital signs, height, and weight. Evaluate growth, development and body composition.

2.2 Examine the musculo-skeletal system carefully. Note the range of movement and muscle testing

---

2.3 Inspect the patient's skin, hair, nails, eyes, oral cavity, musculoskeletal system and neurological system for clinical manifestations suggestive of nutritional deficiencies.

---

3. Diagnosis, decision making: ----------

4. Draw up a **management plan** in consultation with the patient, caregivers & the PHC team.

---

5. Health promotion and counselling: Identify if you have explored the following important issues:

- The patient's feelings and fears about the problem

- The patient's ideas about the nature and cause of the problem?

- The patient's understanding of the effect of the problem on his or her life and function?

- The patient's expectations of the disease based on prior personal experience or family experiences?

---

6. Referral and discharge: Discuss referral to physiotherapist, social worker etc.

---

7. Peer discussions: Work with peers in groups or ask colleagues to assist you with the examination of a patient with one of the following conditions: a shoulder, knee problem or a patient with lower back pain. Identify and give feedback on the condition that you examined.

---

8. Clinical reasoning:
Based on the subjective and objective data, assess if your patient is at risk for osteoporosis.

---

9. Evidence based practice: Consult literature and identify the signs that indicate the possibility of serious spinal pathology.

---

10. Learning development plan
Identify the resources and learning strategies that you used to achieve the learning outcomes.

Reflect on your experience: Apply Tanner's, 2006 model whilst doing activity 7 and identify your nursing response to enhance critical thinking and decision-making skills.

Criteria:

- Engage actively in self-evaluation and reflection to acknowledge strengths and areas of weakness.
- Discuss and review your practice through active engagement with your peers and PHC colleagues.
- Seeks and responds to feedback from the mentor, lecturer and the PHC team at the facility.

What did you **noticed** about the situation initially?

What is your **interpretation** (e.g. its cause, vital signs?)

How did you **respond** to the patient, family? List the actions.

Reflection – on action & clinical learning:

3 ways your nursing skills expanded.

Things you might do differently in a similar situation.

What additional knowledge/skills do you need, in a similar situation?

Describe changes in your values/feelings as a result of the experience.

Signatures: Student ..... **Mentor** ..... **Date** .....

Case based presentation: Assessment and feedback from mentor on achievement of Activity 7

The student must demonstrate understanding of the disease condition/s and how it is managed at primary care level, through accurate and relevant information on the following content:

Apply Benner's 1984 stages [Table 4] Scale	1	2	3	4	5	Comments
CRITERIA						
1. Subjective data 1.1 Did the student explore the patient's health problem, fears and expectations appropriately? 1.2 Is data obtained is complete and logically structured.						
2. Objective data Is all relevant clinical signs obtained by using the 4 cardinal techniques. Did the student clearly identified and Interpret vital observations.						
3. **Diagnosis, decision making** Did the **s**tudent confirm the diagnosis with laboratory tests and other investigations, to make a final diagnosis?						
4. **Management objectives and care plan** 4.1 Are the problem outcomes logically and thoroughly planned in consultation with the patient? 4.2 Are the plan realistic and measurable with a time frame?						
5. Health promotion and counseling The student implemented disease prevention and health education programmes.						
6. Discharge and referral In consultation with the patient and the PHC team.						
7. Peer discussions Evidence of peer feedback and discussions.						
8. Clinical reasoning Evidence of literature and PHC team consulted.						
9. Documentation of data **9.1** Is the data accurate, logical and complete. 9.2 Is all information verified with the patient?						
10. **Reflection** Is there evidence of the development of learning that has taken place by the student?						

Overall comment on performance and action to be taken if student not found competent:

……

Signatures: Student ……. Mentor …… Date ……

Evidence of learning

The following evidence sheets must be completed and marks will be allocated on the portfolio marking tool.

1. Evidence of common primary care procedures performed
2. Evidence of learning activities attended in the PHC setting

- Identify all clinical procedures and investigations performed by you.
- Ensure that you complete procedures under supervision of the mentor or registered nurse if you are not competent.
- Consult literature, attend in - service learning opportunities and seek the assistance of your mentor to ensure that you become competent.

3. Evidence of clinical conditions seen in the PHC setting

4. Register of patients

- Identify the different clinical conditions that you actively seen and engaged with.
- Complete it under the different systems of the body and ensure that you cover all the systems.
- Complete the register with the amount of patients seen by you as stipulated by the South African Nursing Council.

5. Peer assessments and self-directed practice in the skills laboratory

- Record all practices and discuss your progress with your mentor for guidance and to clarify problem areas.

6. Attendance in the PHC setting

- Record all your hours worked in the facilities and ensures that it is signed by the registered nurse. Do not delay with obtaining signatures.

7. Learning development plan: student and clinical supervisors meetings

Identify the following:

- if you have discussed your plan with the mentor and the guidance that you received from the mentor.
- the resources that you required to achieve the learning outcomes and the learning strategies that you used to facilitate your learning needs.
- target dates for achievement of activities.

1. Evidence of common primary care procedures performed

Primary care procedures and diagnostic tests		Identify procedure and date performed				Signature of mentor or RN
	Respiratory procedures:					
1	Using a peak expiratory flow meter					
2	Administer oxygen					
3	Using inhalers and spacers					
4	Mantoux test and measurement					
	Wounds:					
5	Suturing of wounds					
6	Wound irrigation					
7	Calculation of percentage of burns					
8	Assessment of an injured ankle					
9	Assessment of the at risk diabetic foot.					
	Diagnostic tests:					
10	Papanicolaou smear					
11	Test for malaria					
12	HIV rapid testing					
13	Hemoglobin test					
	Diagnostic procedures:					
14	Recording an electrocardiogram					
15	Interpreting laboratory results					
16	Reading a chest radiograph					
17	Clinical staging of HIV/AIDS					
	Clinical procedures:					
18	Insertion of a urinary catheter					
19	Glascow coma scale					
20	Insertion of a naso-gastric tube					
21	Insertion of a peripheral line					
22	How to iImmobilise a spine					
23	Calculation of BMI					
	Identify any other procedures performed:					
25						
26						
27						
28						
29						

2. Evidence of learning activities attended

	Identify the learning activities attended in the PHC setting. (In-service lectures, demonstrations, tutorials etc.)	Date	Signature of mentor / RN
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

3. Evidence of common primary care conditions seen

Disease condition/diagnosis	Date	Signature of mentor / RN
Integumentary system: (Skin, hair, nails & scalp)		
Head & neck: (eyes, ears, nose/sinuses + mouth/throat)		
Lungs and respiratory system:		
Heart and peripheral vascular system:		
Musculoskeletal system:		
Abdominal system		
Reproductive system and the perineum		
Neurological system		

4. Register of patients seen

Identify if the patients has been stabilized in the facility or if the patient has been referred to secondary or tertiary services for e.g. patients with CCF, uncontrolled diabetes /hypertension, asthma, anemia.

<table>
<tr><td>Date:

F/No:</td><td>Age:

_____

M/F:</td><td colspan="2">Patient's problem/s:</td></tr>
<tr><td colspan="4">Systems examined</td></tr>
<tr><td colspan="2">Investigations done:</td><td colspan="2">Diagnosis/ Differential diagnosis</td></tr>
<tr><td colspan="2">Stabilized in treatment room: If yes, discuss the management given.</td><td colspan="2">Drug Rx prescribed:</td></tr>
<tr><td colspan="2">Health promotion activities done:</td><td colspan="2">Referral and follow up:</td></tr>
<tr><td colspan="4">Signature of mentor or registered nurse:</td></tr>
</table>

Make copies of the page to complete the register.

5. Record of peer assessments in the skills laboratory

Date	Peer assessments	Comments on progress	Signature of peer

Record of self-directed practices in the skills laboratory

Date	Self-directed practices performed	Comments on progress	Signature of mentor

6. Record of attendance in PHC setting

Signature of registered nurse			**Placement area:**		
Date	**Hours**	Signature of RN	**Date**	**Hours**	Signature of RN

7. EVIDENCE OF A LEARNING DEVELOPMENT PLAN
Evidence of student and mentor/lecturer's discussions / guidance from the mentor.

Date	**Summary of discussions.** Identify: resources required to achieve learning outcomes, learning strategies to facilitate learning needs and target date for achievement of activities.	**Signatures**
	Course objective 1 --- --- --- ---	
	Course objective 2 --- --- ---	
	Course objective 3 --- --- --- ---	
	Course objective 4 --- --- ---	
	Course objective 4 --- --- ---	
	Course objective 6 --- --- ---	
	Course objective 7 --- --- ---	

Portfolio marking tool for evidence of learning activities

	Primary health care learning activities and clinical hours. **Evidence of the following activities:**	Total amount of activities performed	Date completed	Mentors signature and feedback
1	Common primary care procedures performed			
2	Primary care conditions completed			
3	Learning activities attended in the primary care setting			
4	Peer assessments in the skills lab			
5	Self-directed practices performed			
6	Guided clinical activities attended			
7	Clinical hours completed in the PHC setting			
8	Student and mentor's / lecturer meetings			

Signatures: Student ..... **Mentor:.....**

Date.....

Evaluation instruments

The ICN, (2009:4) refers to competence as the effective application of a combination of knowledge, skill and judgement demonstrated by an individual in daily practice. Competencies are required to perform safely within the scope of a nurse's practice and reflect the following:

- knowledge, understanding and judgement
- a range of skills cognitive, technical or psychomotor and interpersonal; and
- a range of personal attributes and attitudes.

According to Benner (1984: 185), the goal of nursing education is to 'provide the nurse with maximum flexibility and scope of practice after graduation'. The evaluation tools are based on Benner's five proficiency stages of practicing nurse's below, which provide an overview of the level that the nurse are working at.

Assessment scale: Benner's 1984 stages of clinical competence

Nurse Competency level Description of behaviour's

Novice Rating score (1)	• Have no experience of the situations in which they are expected to perform. • are taught rules to help them perform • The rules are context- free and independent of specific cases. • The novice has no 'life experience' in the application of rules and must work under supervision.
Advanced beginner Rating score (2)	• Can demonstrate marginally acceptable performance. • They have coped with enough real situations pointed out to them by a mentor. • The advanced beginner has prior experience in actual situations, but still requires supervision.
Competent Rating score (3)	• An increased level of proficiency as the nurse displayed conscious and deliberate planning of goals. • The deliberate planning helps to achieve efficiency and organization. The nurse does not yet have enough experience to recognize which aspects of a picture are most important or most salient.
Proficient Rating score (4)	• Understand a situation as a whole because they perceive its meaning in terms of long-term goals. • They can recognize when the expected normal picture does not materialize and are competent to modify plans appropriately in response to different circumstances. • The holistic understanding ensures that the decision making skills of the nurse improves and they are able to advise others on how to perform tasks.
Expert Rating score (5)	• The expert does not rely on rules or guidelines to connect her/his understanding of the situation to an appropriate action. • The enormous background of experience allows them to operate from a deep understanding of the total situation.

General guidelines: use of the evaluation instruments to perform a physical examination

- Use Benner's stages of clinical competence to evaluate clinical skills and to plan remedial action for the student, as applicable.

- The clinical skills include the following evaluation instruments:
  - Interviewing and history taking
  - General physical examination
  - Physical examination of the different body systems
  - Diagnosis and management plan

- The evaluation instruments consist of the following 4 columns:
  - Column1 - Procedure to be performed
  - Column 2 - Benner's scale
  - Column 3 - Comments by the evaluator
  - Column 4 - Not applicable (NA) section.

- A tick (✓) should be made in each column indicating the students' performance.
- Identify if an item is 'NA' and deduct it from the maximum total.
- Add all the marks the student obtained.
- Calculate the student's percentage.
- Include comments if indicated to ensure that remedial action can take place and be followed up by the mentor.
- Reflection by the student and evaluator to acknowledge strengths and areas of weakness.

Evaluation tool: Interviewing and history taking

HISTORY TAKING		Mentor's assessment					Comments	N/A
Benner's scale		1	2	3	4	5		
1	**Interviewing** Preparation of patient, environment and the nurse.							
2	Introductions and identification of patient.							
3	Adhere to principles for effective interviewing							
4	**History taking** Biographical data and the source of the information							
5	Discuss main complaint/s							
6	If pain is a symptom, obtain the following characteristics of pain: Location and radiation							
7	Character or quality of the pain							
8	Timing and severity							
9	Aggravating + relieving factors							
10	Associated factors							
11	General health questions: - malaise and fatigue							
12	- repeated infections, cold shivers, pyrexia							
13	- recent weight loss, changes in appetite and indigestion							
14	- chest pain and palpitations							
15	- changes in sleeping pattern							
16	- cough							
17	- headache							
18	- dyspnea							
19	Previous health history							
20	Family history							
21	Surgical history							
22	Medication: prescription/ nonprescription drugs							
23	Allergies							
24	Nutritional history: dietary consumption and dietary intake							
25	Sexual History							
26	Personal and social history							
27	Occupational health status							
28	International and national travel							
29	HIV Test							
30	H1N1 vaccination							
Questions of all body systems								

31	**Skin**: changes in: color, pigmentation, temperature, moistness and hair distribution. Petechial, pruritus, dryness, moles, scars, rashes and, excessive oiliness, ecchymosis and bruising.							
32	**Nails:** soft, brittle, abnormally shaped, cyanotic nail bed, colour change, nail biting							
33	**Hair**: alopecia, texture changes, oiliness, and dryness							
34	**Head & face**: injury, headaches, vertigo, syncope and facial pain							
35	**Eyes**: changes in visual acuity, blurred vision, diplopia, photophobia, pain, inflammation, swelling and color blindness Itchiness, excessive lacrimation, cataracts, glaucoma							
36	**Ears**: deafness, tinnitus, vertigo, discharge, pain in the ears, infection, mastoiditis.							
37	**Nose & sinuses**: rhinitis, epistaxis, obstruction, congestion, sneezing, postnasal drip, loss of sense of smell. Pain in infra-orbital or sinus areas, coryza							
38	**Mouth**: bleeding or swelling of gums, dental caries, toothache, loss of teeth, erosions of the tongue, lips or mucous membranes, Excessive salivation, changes in taste and fit of dentures.							
39	**Throat**: sore throat, hoarseness							
40	**Neck and lymph nodes**: swelling, pain, limited movement. Enlarged lymph nodes and thyroid problems.							
41	**Breasts:** lumps, pain of the breast, tenderness and discharge from the nipples.							
42	**Respiratory system:** cough, sputum, shortness of breath, hemoptysis, wheezing, and upper airways infection							
43	**Cardiac system:** orthopnea, chest pain, oedema, palpitations, fatigue, dyspnea and intermittent claudication.							
44	**Gastrointestinal system** Changes in appetite, dysphagia, and bowel actions. Any nausea, heartburn, flatulence, vomiting, constipation and incontinence. Diarrhea, abdominal pain, colic, hematemesis, rectal bleeding. Hemorrhoids and use of laxatives.							
45	**Musculoskeletal system** Extremities: temperature, color, oedema, deformity, varicose veins and limited mobility. Muscles: pain, cramps, weakness Joints: pain, stiffness, swelling, redness							
46	**Genito –urinary system** Dysuria, urgency, frequency, suprapubic pain, retention, incontinence, dribble, hematuria, genital rash, genital sores Changes in colour or odour of urine, strength of stream (male)							
47	**Reproductive system**							

	Males: lesions, discharges, prostate and swelling of scrotum. Females: problems of menstrual cycle, dysmenorrhea, vaginal discharge or infections, pruritus, use of contraceptives.							
48	**Neurological system** Headaches, vertigo, syncope, convulsions. Changes in: behavior and mood, depression, phobias, memory and disorientation. Inability to concentrate &speech problems. Motor problems: poor balance, tremors, paresis +muscle atrophy							
49	**Endocrine system** Polyuria, polydipsia, polyphagia, excessive sweating, voice change, goiter, change in hair distribution							
50	**Recordkeeping** Summarize data and allow the patient to add or to clarify the data obtained.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored

---------- =---------- = ---------- = Final % ----------

Total items (250) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: Interview and history taking	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- ---	**What is the student doing well? What is working and why?** --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- ---	**What have you noted as gaps in the student's knowledge?** --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- ---

Signatures:

Student ..... Mentor: .....

Date.....

B. PHYSICAL EXAMINATION– General examination		Mentor's assessment					Comments	N/A
Benner's scale		**1**	**2**	**3**	**4**	**5**		
1	**Environment:** privacy with clean, comfortable, well lighted room **Equipment:** assemble and check for adequate functioning. **Patient:** ensure patient is in a comfortable position. **Nurse:** wash hands, nails cut short and clean.							
	Observe physical, emotional appearance and interpret findings							
2	✓ Assess the level of consciousness and observe for signs of anxiety or distress.							
3	✓ Observe the skin colour.							
	✓ Note mood, attitude and facial expression							
4	✓ Observe voice and speech.							
	✓ Observe head and face.							
5	✓ Assess the nutritional status of the patient							
	✓ Observe body build, weight and height							
6	✓ Observe posture, movements and gait							
	✓ Observe grooming, and note breath and body odour							
	✓ Note ability to see and hear.							
	Baseline measurements and vital signs							
7	Measure blood pressure							
8	Assess heart rate and rhythm							
9	Assess respiratory rate and rhythm							
10	Record temperature							
11	Measure weight, height and assess BMI							
12	Urinalysis							
13	Hemoglobin / haemoglucotest. Do procedures, if indicated.							
14	Peak expiratory flow							
15	**Assess severity of patient's condition**: Is the patient in pain?							
16	Any signs of jaundice							
17	Signs of anemia: palpebral conjunctiva, nails + buccal mucosa							
18	Observe clubbing of the fingers							
19	Assess for signs cyanosis. Inspect nail beds, palpebral conjunctiva, lips and palms.							
20	Any signs of oedema observed.							
21	Inspect and palpate the neck for: masses, scars and pulsations.							

22	• Occipital lymph nodes.							
23	• Pre- auricular lymph nodes.							
24	• Post auricular lymph nodes.							
25	• Parotid salivary glands							
26	• Tonsillar lymph nodes.							
27	• Submandibular lymph nodes.							
28	• Submandibular salivary glands							
29	• Submental lymph nodes.							
30	• Superficial cervical lymph nodes.							
31	• Deep cervical lymph nodes.							
32	• Posterior cervical lymph nodes.							
33	• Supra and infra clavicular lymph nodes							
34	Inspect and palpate for enlargement of the thyroid gland							
35	Auscultate for thyroid bruit, if indicated.							
	Examination of the integumentary system(skin, nails, hair)							
36	**Inspect the skin surface for the following:** rashes, discoloration, pigmentation, lesions, texture, erythema extensive blistering, abscesses, crusting and warts.							
37	Inspect the spread of lesions and rashes.							
38	Inspect for evidence of dilated veins.							
39	Inspect for any abnormal hair distribution.							
40	**Palpate the skin surface for:** turgor, texture and temperature.							
41	**Inspect and palpate the nails for**: hygiene, colour, thickness, shape and for attachment to the nail bed.							
42	Inspect the skin around the nail for swelling and tenderness.							
43	**Inspect the hair for**: texture, hair loss and changes in characteristics for e.g. dryness and brittleness.							
44	**Inspect the scalp for:** warts, cysts, dryness, erythema, dandruff, scabs, inflammation and parasites for e.g. nits, lice.							
45	**Palpate the scalp for**: masses and areas of tenderness.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored

---------- = ---------- = ---------- = Final % ----------

Total items (225) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: general examination including the integumentary system	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

Examination of the head and neck		Mentor's assessment					Comments	N/A
Benner's scale		1	2	3	4	5		
1	**Face:** Inspect for size, symmetry and intactness. Skin surface for: texture, colour, tenderness and lesions.							
2	**Examination of the eyes - Inspect the following** **External eye structures**: position and alignment of the eyes Eyebrows and eyelashes for infections of the follicles. Eyelids for symmetry, closure, blinking and oedema.							
3	Conjunctiva and sclera for colour and clarity.							
4	Cornea for transparency and observe the light reflex.							
5	Observe for opacities of the lens and iris for shape and colour.							
6	Inspect and palpate the lacrimal apparatus							
7	Palpate eyeball to determine the ocular pressure							
8	Observe the extra ocular eye movements in six cardinal fields of gaze.							
9	Inspect and test pupils for size, shape and equality. Test reaction to light and pupillary response to accommodation							
10	Test near and distant vision, if indicated.							
11	Test peripheral vision.							
12	**Inspect and palpate the ears**: Inspect auricle for position, size, shape symmetry, skin lesions, and nodules, including the alignment.							
13	Palpate the tragus and the mastoid bone for nodules, swelling, redness and tenderness.							
14	Inspect external auditory canal for lesions and any discharges (blood, pus or serous fluid)							
15	Examine tympanic membrane and external auditory canal with an auroscope:							
16	Inspect canal for swelling, discharges, polyps, foreign bodies, redness, tumours and lesions.							
17	Examine tympanic membrane for colour, shape, intactness and the presence of the cone of light.							

18	Test the hearing							
19	**Inspect external aspect of the nose and nasal cavities**: Inspect and palpate the external aspect of the nose for swelling and tenderness. Observe for any deviations in the shape.							
20	Inspect nose for patency and test sense of smell.							
21	Inspect nasal cavities for swelling, polyps and discharges.							
22	Inspect the turbinate's for swelling and discharges.							
23	Inspect frontal + maxillary sinuses for swelling. Palpate and percuss lightly over the sinuses.							
24	**Inspect & palpate mouth and pharynx:** Inspect lips for ulcers, moistness, cracks and mouth angles for fissures and cracks. Palpate inside of lips for nodules and lesions.							
25	Tongue for colour, swelling, lesions, ulcers, movement, tremors and symmetry.							
26	Floor of mouth, hard/ soft palates for colour, lesions e and texture. Buccal mucous membrane for white plaques, swelling, moisture, bleeding and ulcers.							
27	Inspect teeth for alignment, hygiene, missing teeth and caries.							
28	Inspect and palpate the gums for bleeding, retraction and ulcers.							
29	Test for mobility of the mandible.							
30	Inspect the oropharynx for swelling, exudates, ulcers, discharges and the size of the tonsils.							
31	Test the gag reflex.							
32	**Inspect ion and palpation of the neck** Inspect and palpate the neck for: masses, scars and pulsations.							
33	Test range of movement of the neck.							
34	Palpate trachea for size and alignment.							
35	Observe for jugular venous distention.							
36	Palpate carotid pulses.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored

---------- = ---------- = ---------- = Final % ----------

Total items (180) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: examination of the head and neck	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

	Examination of the thorax / lungs	Mentor's assessment					Comments	N/A
	Benner's scale	**1**	**2**	**3**	**4**	**5**		
1	**Adhere to the principles of examination of the chest.**							
2	**Assess for signs of respiratory distress:**							
3	**Examination of the anterior chest:** Inspect skin surface for the colour, intactness, lesions, scars and for dilated blood vessels.							
4	Observe respiratory movements for depth and symmetry.							
5	Observe shape of chest for abnormalities.							
6	Inspect the apex beat.							
7	Palpate the chest for the temperature, texture oedema, moisture and turgor.							
8	Palpate the precordium: for thrills, lifts and heaves.							
9	Palpate chest wall for thoracic expansion.							
10	Palpate chest wall for tactile vocal fremitus.							
11	Percuss for precordial dullness of the heart.							
12	Percuss for liver dullness.							
13	Percuss the lungs: directly on clavicles and interspaces.							
14	Auscultate the breathing sounds.							
15	Auscultate the heart sounds.							
16	**Examination of the posterior chest:** Inspect the skin surface for the colour and any lesions, masses.							
17	Inspect the shape and symmetry of the spinal column.							
18	Observe the quality of breathing and respiratory movements for depth, rhythm and for symmetry of respirations.							
19	Palpate chest wall for temperature, texture oedema, moisture.							
20	Palpate for swelling, tenderness and pain of the spinal column.							
21	Palpate chest wall for thoracic expansion.							
22	Palpate chest wall for vocal fremitus.							
23	Percussion of chest for sounds & pulsations.							
24	Auscultate the posterior chest and listen for sounds.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored

---------- = ---------- = ---------- = Final % ----------

Total items (120) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: examination of the thorax / lungs	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

Examination of the breasts and axillae		Mentor's assessment					Comments	N/A
Benner's scale		**1**	**2**	**3**	**4**	**5**		
1	Explain to the patient the objective of the examination and how she can cooperate.							
2	**Inspect and palpate: breasts** **Female breasts:** start with patient in a sitting position. Inspect the breasts for size, contour or shape, symmetry, masses or any flattening.							
3	Inspect the skin surface for discoloration, hyper pigmentation, and oedema or for any hyper vascular areas.							
4	Observe the areola areas and nipples for the size, shape, colour, discharges, ulcers and any rashes.							
5	Inspect for any inversion, dimples or retraction.							
6	Palpate breasts for masses, tenderness and for any nodules while the patient lies on her back.							
7	Palpate nipples for masses and compress it to determine any discharges.							
8	**Male breasts:** inspect for size, enlargement, and symmetry.							
9	Palpate the areola area for nodules.							
10	**Palpate for enlarged lymph nodes of the axillae.** • Central lymph nodes deep into the axillae.							
11	• Pectoral lymph nodes							
12	• Subscapular lymph nodes							
13	• Lateral lymph nodes							
14	• Supra and infraclavicular lymph nodes							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored
---------- = ---------- = ---------- = Final % ----------
Total items(70) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: chest including breasts and axillae	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

Examination of the musculoskeletal system		Mentor's assessment					Comments	N/A
Benner's scale		**1**	**2**	**3**	**4**	**5**		
1	Inspect the posture and symmetry of the body.							
2	**Inspect skin** surface of arms and legs for: colour, ulcers, scars, pigmentation and lesions.							
3	**Palpation:** skin temperature and for any oedema.							
4	Radial, ulnar and brachial pulses.							
5	Palpate epitrochlear lymph nodes.							
6	Palpate superficial lymph nodes.							
7	Palpation of the following: femoral, popliteal, posterior tibial and dorsalis pedis pulses.							
	Examine bones and joints for the following:							
8 9	Structure, function, range of motion, masses and the condition of the surrounding tissue. Note also tenderness and changes in structure of the bone.							
10	Inspect for redness of the skin, crepitation's, swelling in and around the joint.							
11	Test range of motion and muscle strength if indicated.							
12	Test range of movement of temperomandibular joint.							
13	Test jaw for range of movement.							
14	Test flexion and extension of the head							
15	Test range of movement of the shoulder joint.							
16	Test elbow joints, hands and wrists							
17	Inspect knees for alignment and for symmetry.							
18	Test ankles and feet for range of movement							
19	Test flexion, hyperextension and rotation of the back.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored
---------- = ---------- = ---------- = Final % ----------
Total items (95) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: examination of the musculoskeletal system	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

Examination of the genitalia & inguinal area		Mentor's assessment					Comments	N/A
Benner's scale		**1**	**2**	**3**	**4**	**5**		
1	**Adhere to general approach for examination.**							
2	Inspect and palpate the external **male genitalia:**							
3	Inspect penis and glans for inflammation, nodules, lesions, discharge and swelling.							
4	Palpate shaft of penis for tenderness and swelling.							
5	Inspect scrotum for texture, swelling, scars, inflammation and oedema.							
6	Palpate testes and epididymis for nodules, tenderness and for the size and shape.							
7	Inspect and palpate inguinal canal for swelling &tenderness Palpate hernias.							
8	Inspect and palpate the external **female genitalia.**							
9	Inspect distribution and characteristics of pubic hair.							
10	Inspect skin surface of pubic area for lesions, swellings, inflammation and parasites.							
11	Inspect clitoris, urethral /vaginal orifice and labia majora for discharge, ulcers, nodules and inflammation.							
12	Palpate any lesions noted for induration.							
13	Palpate for tenderness and swelling of Bartholin's gland.							
14	Palpate inguinal lymph nodes							
15	**Perform a vaginal speculum examination:**							
16	Inspect the vagina for discharge, redness and ulceration.							
17	Bimanual examination can be carried out for the following:							
18	Tenderness and masses in the vaginal walls.							
19	Tenderness, consistency, mobility and nodules of the cervix.							
20	Note size, shape, position, tenderness, mobility and masses of the uterus.							
21	Inspect and palpate the anus and rectum: male and female							
22	Place patient in lateral position.							
23	Separate buttocks and inspect the anal areas for the colour, ulcers, inflammation, rashes and skin lesions.							
24	Palpate rectum for masses, tenderness and nodules.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored

---------- = ---------- = ---------- = Final % ----------

Total items (120)– 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: Examination of the genitalia & inguinal area	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

Examination of the abdomen		Mentor's assessment					Comments	N/A
Benner's scale		**1**	**2**	**3**	**4**	**5**		
1	**Adhere to principles of examination of the abdomen**							
2	**Inspection:** Observe skin integrity: discoloration, lesions scars or stria. Any dilated veins or ecchymosis.							
3	Umbilicus for shape, hernia, discharge or inflammation.							
4	Shape of the abdomen							
5	Assess for symmetry or enlarged organs.							
6	Note any swelling							
7	Observe pulsations of aorta and peristalsis of the abdomen.							
8	**Auscultation:** for bowel sounds in all quadrants							
9	Listen for vascular sounds: bruits of the abdominal aorta iliac and femoral arteries.							
10	**Percussion**: of liver and kidneys to determine the size of abdominal organs.							
11	Percuss for the presence of solid and liquid masses or for any air and fluid in the abdominal cavity.							
12	Percuss to identify distribution of tympany and dullness.							
13	Percuss for liver dullness to assess the size of the liver							
14	Perform fist percussion over the kidneys.							
15	**Light palpation:** identify skin temperature, muscle rigidity, tenderness over abdomen and presence of large masses.							
16	Test for ascites if indicated:							
17	Observe tenderness and rigidity in right upper quadrant.							
18	Test for appendicitis: presence of rovsing or obturator sign							
19	**Deep palpation:** to identify abnormal masses. Test for rebound tenderness.							
20	Palpate the liver If indicated.							
21	Palpate spleen for the presence of a mass.							
22	Palpate kidneys for tenderness, size and shape.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored
---------- = ---------- = ---------- = Final % ----------
Total items (110) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: Examination of the abdomen	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

Examination of the nervous system		Mentor's assessment					Comments	N/A
Benner's scale		**1**	**2**	**3**	**4**	**5**		
1	**Determine the following:** If patient displays difficulty in speaking The patient's orientation to time, place and person. The patient's attentions span and if any lapses in memory is observed.							
2	Examination of the cerebellar system: Romberg's test							
3 4	Exam of motor function and balance: legs : arms							
5 6 7	Exam of motor nervous system: muscle tone and muscle strength neck muscles, deltoid; biceps; triceps and wrist joint muscles. Include the leg and ankle joint and foot muscles.							
8 9	Test the tendon reflexes: biceps; triceps knee and ankle reflex							
10 11	Test the superficial reflexes: abdominal plantar							
12 13 14	Exam of the sensory nervous system: test for response to pain, test for light touch and vibration							
15 16 17	Test for meningeal irritation: neck stiffness Brudzinski's sign Kernig's sign							
18	Examine cranial nerves: Olfactory 1st cranial nerve							
19	Optic 2nd cranial nerve							
20	Oculomotor 3rd cranial nerve							
21	Trochlear 4h cranial nerve							
22	Trigeminal 5th cranial nerve							
23	Abducens 6th cranial nerve							
24	Facial 7th cranial nerve							
25	Vestibulocochlear 8thcranial nerve							
26	Glossopharyngeal 9thand vagus10th cranial nerves							
27	Accessory 11th cranial nerve							
28	Hypoglossal nerve 12thcranial nerve							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored

---------- = ---------- = ---------- = Final % ----------

Total items (140) – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: Examination of the nervous system	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....

Date.....

Diagnosis and management plan		Mentor's assessment					Comments	N/A
Benner's scale		**1**	**2**	**3**	**4**	**5**		
1	Identify all your abnormal findings anatomically.							
2	Utilize previous knowledge and consult colleagues.							
3	Confirm your diagnosis with laboratory tests and investigations.							
4	Develop a plan for each problem in consultation with the patient							
	Identify management objectives: drug – treatment.							
5	**Prescription in patients record:** date, name of medicine written in full, no abbreviations,							
6	schedule,							
7	generic name							
8	strength, dosage,							
9	frequency, (state in terms of hours),							
10	Duration of treatment, amount.							
11	**Patient data:** name/number, schedule, generic							
12	strength, dosage							
13	volume, amount and frequency							
14	batch number, expiry date,							
15	Name of facility's and address.							
16	Date medication issued.							
17	**Health promotion & Counseling:** Identify health risks for the patient's age group and cultural status							
18	Guide patient to make informed decisions about health care							
19	Counsel, guide and give health education to patients.							
20	Set goals in consultation with the patient and family members							
21	**Referral and discharge** Referrals to other health professionals.							
22	Give follow up appointment.							
	Recordkeeping							
23	Analyze and interpret data collected. Summarise data and allow the patient to clarify information.							
TOTAL ITEMS SCORED							**Total NA**	

Rating: mark allocation

Total items scored
---------- = ---------- = ---------- = Final % ----------
Total items (115) X 5 – 'NA' X 5

SIGNATURES: Mentor ..... Student ..... Date .....

Critical reflective practice: Apply Tanner's, 2006 model: Diagnosis and management plan	
Student's assessment	**Mentor ' s assessment**
What are you doing well/ what is working and why? (Strengths and weaknesses). --- --- ---	**What is the student doing well? What is working and why?** --- --- ---
What have you noted as gaps in your knowledge that you need to improve on. --- --- ---	**What have you noted as gaps in the student's knowledge?** --- --- ---
What additional preparation is necessary for you to improve your knowledge and skills? --- --- ---	**What additional preparation is necessary by the student to demonstrate competence(knowledge, skills, values and attitude)** --- --- ---
Follow up appointment with your mentor, to re-engage with the procedure/skill. --- --- ---	**Feedback and remedial follow up appointment given to student to re-engage with the procedure, if indicated.** --- --- ---

Signatures: Student ..... Mentor:.....
Date.....

Clinical practice evaluation of student (adapted from, Van der Merwe, 2005)

Mentor: Complete an evaluation to document and communicate the student's progress.

1. Assessment of the student's ability to implement the following COMPETENCY OUTCOMES

Benner's scale	1	2	3	4	5	Comments
1. Practices according to relevant legislation.						
2. Interviews the patient, gathers an accurate history and perform a focused physical examination.						
3. Measure and interpret vital observations and analyse data						
4. Demonstrates respect and dignity to clients.						
5. Consults with colleagues and actively engages the patient as a partner in health care.						
6. Organizes workload in consultation with the health care team and record data that is objective, accurate and complete						
7. Use literature and research findings to improve current practice.						

2. Indicate which of the following values and attitudes you have observed in the student's practice.

Values and attitudes	Comment
Respectful	
Willingness to learn	
Open and approachable	
Professional role model	
Acceptance of criticism	
Responsible for own actions	
Committed to quality patient care	

3. Provide recommendations for improvement:

Signatures: Mentor: ---------- Student: ---------- Date: ----------

Evaluation of mentor

1. Give feedback on the knowledge and skills displayed by your mentor.

---

2. Comment on the values and attitudes that you observed in your mentor's practice.

Values and attitudes	Comment
Generate an environment of trust	
Question and challenge the student's clinical practice	
Observe the student's thinking and progress in PHC practice	
Ensure continuous guidance and encouragement.	
Effective time management	

Recommendations, if indicated for improvement:

Signatures: Mentor: ---------- Student: ----------

Date: ----------

Case study

The student may use the Neuman System Model, 1995 as an assessment and intervention tool for preparing the case studies (George, 2002: 339-358). Neuman's theory views the patient as a system in constant interaction with environmental stressors such as pain, loss, sensory deprivation and cultural change. The system's defensive mechanisms try to prevent these stressors from upsetting the equilibrium and causing ill health. Stressors have three main origins:

- Intrapersonal forces arise from within the person, e.g. pain, infection, thoughts and feelings.
- Interpersonal forces arise between persons, e.g. role expectations.
- Extra personal forces arise from outside the person, e.g. job or financial concerns (Van Wyk, Leech & Mtshali, 2011:10-11).

A. Intake summary:

Name, age, sex
Marital status
Referral source and related information

B. Stressors as perceived by client

(If client is incapacitated, secure data from family or other resources)

- What do you consider your major stress areas or areas of health concern? **(Identify areas)**
- How do present circumstances differ from your usual pattern of living? **(Identify life style-patterns)**
- Have you ever experienced a similar problem? If so, what was that problem and how did you handle it? Where you successful? **(Identify past coping patterns)**
- What do you anticipate for yourself in the future as a consequence of your present situation? (**Identify perceptual factors, that is, reality versus distortions – expectations, present and possible future coping patterns)**
- What are you doing and what can you do to help yourself? **(Identify perceptual factors)**
- What do you expect caregivers, family, friends, or others to do for you? (Identify perceptual factors)

C. Stressors as perceived by caregiver

- What do you consider to be the major stress areas, or health concern? **(Identify these areas)**
- How do present circumstances differ from your usual pattern of living? **(Identify life style-patterns versus distortions – expectations, present and possible future coping patterns.)**
- Client's past experiences with similar situation.
- What do you anticipate for the future as a consequence of the client's present situation?
- What can the client do to help him/herself?
- What do you think the client expects from family, friends and caregivers or other resources?

D. Intrapersonal factors

- Physical (Examples: degree of mobility, range of body function)
- Psycho-sociocultural (Examples: attitudes, values, expectations, behaviour patterns, and nature of coping patterns)
- Developmental (Examples: age, degree of normalcy, factors related to present situation)
- Spiritual belief system (Examples: hope and sustaining factors)

E. Interpersonal factors

Examples are resources and relationships of family, friends, or caregivers that either influence or could influence Area D.

F. Extra personal factors

Examples are resources and relationship of community facilities, finances, employment, or other areas which either influence or could influence Areas D and E.

G. Formulation of a comprehensive nursing diagnosis: (desired outcomes)
Goals,
Prevention as intervention and
Evaluation

This is accomplished by identifying and ranking the priority of needs based on total data obtained from the client's perception, the caregiver's perception, or other sources, such as laboratory reports.

Appropriate theory is related to the above data.

With this format, reassessment is a continuous process and is related to the effectiveness of intervention based on the prior stated goals.

Effective reassessment would include the following as they relate to the total client situation:

a. Changes in nature of stressors and priority assignments
b. Changes intrapersonal factors
c. Changes interpersonal factors
d. Changes extra personal factors

An assessment tool of this nature should offer a current, progressive, and comprehensive analysis of the client's total circumstances and relationship of the five client variables **(physiological, psychological, sociocultural, developmental, and spiritual)** to environmental influences.

Critical reflective practice

You may use the following guide: Tanner's (2006) Clinical Judgement Model Guide for Reflection. The guide for reflection is intended to help you think about a given clinical situation you have encountered during the past week and your nursing response to that situation.

Introduction

Describe a nursing situation you encountered this week.

Background

- Describe your relationship to the patient at the time you noticed the situation (e.g. previous contact with patient and/or family)
- Consider experiences you have had that helped you provide nursing care in this situation. Describe your formal knowledge (e.g.; physiology, psychology, and communication skills), previous nursing experience with a similar problem, and personal experiences that helped guide you as you worked with the patient.
- Describe your beliefs about your role as the nurse in working on the situation.
- Describe any emotions you had about the situation.

Noticing

- What did you notice about the situation initially?
- Describe what you noticed as you spent more time with the patient and/or family.

Interpreting

- Describe what you thought about the situation (e.g., its cause, potential resolutions, patterns you noticed).
- Describe any similar situations you have encountered in practice before. Describe any similarities and differences you observed when compared with the current situation.
- What other information (e.g., assessment data, evidence) did you decide you needed as you considered the situation? How did you obtain this information? What help with problem solving did you get from your preceptor?
- Your conclusion: What did your observations and data interpretation lead you to believe? How did they support your response to the situation? Include pertinent pathophysiology and/or psychopathology.

Responding

- After considering the situation, what was your goal for the patient, family? What was your nursing response, or what interventions did you do? List all actions that you took.
- Describe stresses you experienced as you responded to the patient or others involved in the situation.

Reflection - in action

- What happened? How did the patient, family, and/or staff respond?
- What did you do next?

Reflection – on action and clinical learning

- Describe three ways your nursing care skills expanded during this experience.
- Name three things you might do differently if you encounter this kind of situation again.
- What additional knowledge, information, and skills do you need when encountering this kind of situation or a similar situation in the future?
- Describe any changes in your values or feelings as a result of this experience.

Application of Tanner's (2006) Clinical Judgement model guide for reflection.

The following is an example of clinical reasoning of the: **skin, hair and nails** (Wilson and Giddens 2009:135).

A 74- year-old man with type 2 diabetes mellitus and peripheral vascular disease arrives at a medical clinic complaining of a painful area on his right lower leg near the ankle.

NOTICING:

The nurse immediately has a perceptual grasp of the situation at hand. Extensive practical knowledge about what to expect with this age group and diagnoses allows the nurse to recognize risk factors, given his situation. **Age, diabetes mellitus and peripheral vascular disease impact perfusion and immunity.** This background knowledge sets up the possibility of noticing signs of a prevalent complication in an individual presenting with these data.

The man indicates the pain started several days ago and has become progressively worse.

The nurse observes a large area of redness and swelling over the medial aspect of the lower left leg, the area is extremely painful to touch and hot.

INTERPRETING:

Early in the encounter, the nurse considers two possible causes of this client's leg pain: potential deep vein thrombosis or infection, both of which the client is at high risk for. To determine whether either has any probability of being correct, the nurse gathers additional data.

Has there been a recent injury to the area, creating a mechanism for bacterial entrance into the skin? The only injury the client can recall is scratching his leg in that area the previous week while cutting weeds. The experienced nurse not only recognizes inflammation and infection by the signs (erythema, heat, and oedema) and symptom (pain), but interprets this information in the context of an injury to a extremity of an individual with type 2 diabetes mellitus and peripheral artery disease. The nurse verifies medication allergies in anticipation for the need of antibiotics

RESPONDING:

The nurse initiates appropriate initial interventions to reduce the inflammation and treat the infection, determine which type of health care provider may best assist the client, and ensure that the client receives appropriate immediate and follow-up care including instructions about how to prevent infections.

Health & safety in the PHC setting

Adhere to guidelines of the PHC facility and the educational institution regarding the following:

- Policy guidelines for sharp object injuries
- Exposure to blood and body fluids
- Reporting an incident

Policy guidelines for sharp object injuries or exposure to blood and body fluids

Best Infection Control Practices for Skin-Piercing Intradermal, Subcutaneous, and Intramuscular Needle Injections (ICN & WHO, 2009)

These best practices are measures that have been determined through scientific evidence or expert consensus to most effectively protect patients, providers, and communities.

[***] Strongly recommended and strongly supported by well-designed experimental or epidemiological studies.

[**] Strongly recommended based on strong theoretical rationale and suggestive, descriptive evidence.

[*] Recommended based on expert consensus and theoretical rationale.

Use sterile injection equipment

- Use a sterile syringe and needle for each injection and to reconstitute each unit of medication. [***]
- Ideally, use new, quality –controlled disposable syringe and needle. Inspect packaging for breaches in barrier integrity. [***]
- Discard a needle or syringe if the package has been punctured, torn, or damaged by exposure to moisture. [*]
- If single use syringes and needles are unavailable, use equipment designed for steam sterilization. Sterilize equipment according to WHO recommendations and document the quality of the sterilization process using
- Time, - Steam, Temperature (TST) spot indicators. [***]

Prevent contamination of injection equipment and medication

- Prepare each injection in a clean designated area where blood or body fluid contamination is unlikely. [**]
- Use single-dose vials rather than multi-dose vials [**]. If multi-dose vials must be used, always pierce the septum with a sterile needle. [***]
- Avoid leaving a needle in place in the stopper of the vial. [**]
- Select pop-open ampoules rather than ampoules that require use of a metal file to open. [**]
- If using an ampoule that requires a metal file to open, protect fingers with a clean barrier (e.g., small gauze, pad) when opening the ampoule. [**]

- Inspect for and discard medications with visible contamination or breaches of integrity(e.g., cracks, leaks). [*]
- Follow product-specific recommendations for use, storage, and handling. [*]
- Discard a needle that has touched any non-sterile surface. [*]

Prevent needle stick injuries to the provider

- Anticipate and take measures to prevent sudden patient movement during and after injection. [**]
- Avoid recapping and other hand manipulations of needles. If recapping is necessary, use a single-handed scoop technique. [***]
- Collect used syringes and needles at the point of use in a sharps container that is puncture- and leak-proof and that can be sealed before completely full. [**]

Prevent access to used needles

- Seal sharp containers for transport to a secure area in preparation for disposal.
  After closing and sealing sharps containers, do not open, empty, re-use or sell them. [**]
- Manage sharps waste in an efficient, safe, and environment friendly way to protect people from voluntary and accidental exposure to used injection equipment. [**]

Other practice issues

- Use devices designed to prevent needle stick injury that have been shown to be effective for patients and providers. Auto-disable syringes are increasingly available to prevent re-use of injection equipment.
- Perform hand hygiene prior to preparing injection material and giving injections.
  Avoid giving injections if skin integrity is compromised by local infection or other skin conditions.
  Cover any small cuts.

- Gloves are not needed for injections. Single use gloves may be indicated if excessive bleeding is anticipated.
- Swabbing of vial tops or ampoules with an antiseptic or disinfectant is unnecessary.
  If swabbing with an antiseptic is selected for use, use a clean, single use swab and maintain product specific recommended contact time.

Skin preparation prior to injection

- Wash skin that is visibly soiled or dirty.
- Swabbing of the clean skin prior to giving an injection is unnecessary.
- If swabbing with an antiseptic is selected for use, use a clean, single use swab and maintain product specific recommended contact time.
- Do not use cotton balls stored wet in a multi-use container.

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TO WHOM IT MAY CONCERN

This letter serves to confirm that the undersigned

ILLONA ALTHAEA MEYER

has proof-read and edited the document contained herein for language correctness.

(Ms IA Meyer)

SIGNED

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